Heavy Handed: A Multi-Level Approach to Understanding Regional Variation In The Use of Force By Police

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A thesis submitted in partial fulfillment of the requirements for the degree in Master of Arts  
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HEAVY HANDED: A MULTI-LEVEL APPROACH TO UNDERSTANDING REGIONAL VARIATION IN THE USE OF FORCE BY POLICE

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by

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Graduate Program in Sociology

A thesis submitted in partial fulfillment of the requirements for the degree of Master of Arts

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Chair of the Thesis Examination Board
Abstract

Using data from the *Survey of Inmates in State and Federal Correctional Facilities, 2004* (ICPSR 4572) from the United States Department of Justice Bureau of Justice Statistics, the goal of this paper is to determine whether or not there are regional variations in the way in which American police officers use force at the time of arrest. Specifically, this paper suggests that lower levels of police-suspect violence are present in the Southern United States owning to a culture of violence. Conversely, higher levels of police-suspect violence are likely to be found in the Northern United States as a result of crimes that can best be explained by routine activity theory. To test these theories, this paper addresses two key hypotheses: 1) lower levels of police force will be found in Southern U.S regions, relative to levels in the North; 2) Regional Characteristics can be used in an effort to predict the level of force used in a police-suspect encounter.

Results indicate that there is a significant (p < .001) negative relationship between Southern residence and police use of force, with weaker relationships found in the West (p < .05) and the Midwest (p < .10), all relative to the North. This finding suggests that, in fact, police use of force is higher in the Northern states relative to Southern states, and also higher than levels found in the West and Midwest, respectively. Another important finding, however, indicates that when accounting for regional and demographic variables, the most important predictor is the suspect’s use of force towards the officer, which when taken with the previous findings is also higher in the Northern states relative to Southern States.

**Key Words:** environmental criminology; police force; culture of violence; routine activity
To my mother, who told me that until I had a mortgage, kids and a full-time job on top of school, I could not complain to her.
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Chapter 1: Introduction

The relationship between the police and the suspects they encounter on a daily basis is a dense topic in the study of criminology and one that has gained considerable attention with increasing media coverage and public demands for greater police transparency (Cusac, 2005). Popularity opinion aside, police-suspect encounters that result in some level of force being used are quite common however there is a great degree of regional variance in how these encounters unfold, most noticeably between Southern and Northern U.S states. One possible explanation for this variance lies in the cultural differences found between the South and the North, specifically the presence of a culture of violence and differing cultural outlooks on the nature of crime (Felson and Pare 2010; Felson and Pare 2010). In a culture of violence, criminal acts become part of the everyday and a victim one day is an offender the next; the legitimacy of criminal acts is not questioned nor seen as inherently wrong as it is grounded in a culture that has adopted criminal norms not simply to achieve mainstream goals but also to structure the social system. To understand the North, however, we must look away from violence as an everyday occurrence and view criminal acts as largely predatory and motivated. Routine activity theory provides an examination of crime as occurring through the confluence of space and time of motivated offenders, suitable targets and a lack of guardianship (Cohen and Felson, 1979). These two distinct cultural outlooks towards crime present different understandings of why crimes are committed and how they are dealt with and must be considered side by side towards and understanding of police-suspect interactions.

The primary purpose of this paper is to better understand why the level of force used by police varies between different geographical regions in the United States, with a specific interest
in Northern and Southern states. This paper proceeds by suggesting Southern U.S states are more heavily influenced by a subculture of violence than Northern states, and police only intervene for the most serious crimes and suspects are unlikely to retaliate as crime, arrest and jail are all part of everyday life. Additionally, the relationship between the police and offenders is one of mutual fear, with high tensions resulting in cautious proceedings. In essence, neither side wants to react as they know that a reaction will trigger a serious counteraction. Bankston et al. (1990) provide two possible explanations for this mutual fear; first, the authors note higher than normal rates of personal weapon carrying in the South relative to other parts of the United States. While they suggest that this is in response to a fear for personal safety, they note that this fear can include a fear of mistreatment or violence originating with the police. The use of a weapon against police, then, can be seen as a form of self-defense by potential offenders and of a more acceptable nature. Second, the authors stress the importance of how Southern children are socialized with a ‘culture of violence’ providing members "a repertoire or 'tool kit' of habits, skills, and styles from which [they] construct 'strategies of action' " (Swindler 1986; quoted in Bankston et al., 1990). These ‘strategies’ often stress survival and maintenance of honor less than acquiescing to authority figures. As Huff-Corzinne et. al (1986) note, such socialization increases the chances that any confrontation has the potential to be much more lethal. In Northern states crimes are perhaps less influenced by an underlying culture of violence and are more likely to arise out of opportunity, suggesting that crimes are primarily predatory and occur as part of one’s routine activities and in otherwise low-crime situations. Owing to lower-crime rates, officers are more vigorous in their treatment of criminals and pursue more type of crimes resulting in a greater number of encounters. Running contrary to the South, officers are also much less fearful of
offenders and more blunt in their actions as they are typically dealing with nonviolent and less ‘hardened’ criminals. Outside of largely cultural influence in the South, offenders in the North are more likely to regard arrest and jail time as negative outcomes and thus are more likely to retaliate. A greater number of encounters coupled with higher resistance and more willingness by officers to approach suspects results in a higher level of force used by police. This paper will use a multi-level linear regression on the grounds that it is important to separate neighborhood, sociodemographic and regional variables in the analysis process to better understand the root cause of increased police-suspect violence in Northern states versus Southern states.

This paper will proceed by providing a thorough review of the literature, addressing theories of ecological criminology and the origins of the police force as they relate to environmental and social development. Additionally, a discussion of the two major perspectives at play in this paper – routine activity theory and culture of violence – will follow, with evidence presented that suggests underlying historical and cultural explanations for the development of a culture of violence in the Southern United States and how Northern states may differ. Following this, literature will be presented on the nature of force used by police and how previous research has attempted to classify force on a continuum as well as how a switch away from force as a dichotomous use/non-use variable has altered conceptions of the police-suspect encounter. A discussion of how police officer opinions operate to mitigate the events of any given encounter as well as a thorough discussion of how suspect characteristics play into police behavior will also be presented, followed by the review of several alternative perspectives that show some utility in helping to better understand the nature of suspect-officer interactions.
After reviewing the literature this paper will proceed to describe the data set being utilized, as well as the subsection of the data that was selected as a sample and the relevance of this sample for the study. Following this will be an explanation of the methodology used in this paper, as well as a discussion of why multi-level linear regression was chosen over ordinary least squares (OLS), and how this allows the paper to take a more in depth approach to the data. Further, a discussion of the variables used, their measurement, coding and supplementary statistical techniques will be included. Results will be presented through descriptive statistics and tables containing the results of multivariate analyses and any supplementary data. A discussion will be presented, assessing the results of this paper with regard to previous research and thorough analyses of how the theoretical frameworks presented in this paper can be used to understand the results presented. This paper will conclude with a discussion of the implications of the results as well as an assessment of the limitations facing this paper and suggestions for future research on this topic.
Chapter 2: Theoretical Context and Review of The Literature

2.1 Theories of Ecological & Environmental Criminology

Though the primary concern of this paper is to address regional variation in police use of force throughout the United States, a key component of this variation is embedded in the nature of the region itself. More precisely, it is important to consider each region as not simply the location where an offense/officer response has occurred, but also as a mitigating factor in the nature of the offense and officer response. Early theories of the evolution of the police force as a social institution can be linked back to environmental and ecological development and thus it is important to not only view police as operating in a given area, but also operating as part of a given area. The section below traces major theories of police development in an attempt to better understand the roots of regional variation and the nature of police-citizen interaction.

Ecological/Environmental Histories, Physical Location and Regional Crime

According to Fyfe (1991) the evolution of the police as a social institution can be explained in one of three possible ways: Orthodox Histories, Radical Histories and Local Histories. Each of these perspectives is inherently tied to the nature of the environment in which the police are placed and each postulates the eventual role of modern police as a function of the ecological environment in which they developed. Critchley (1978) presents the ‘orthodox’ view of police evolution largely as a response to rapid industrialization and expansive urbanization (i.e. the development of cities). Such changes required a force equipped to deal with rapidly increasing class differences, offenses owing to an inability to secure legitimate employment in a changing economy and purely opportunistic crimes arising due to increasing populations in localized areas. See also Lee (1901), Lane (1967) and Richardson (1970) for a discussion on
urban growth and industrialization. Radical theories of police evolution again draw on the nature of industrialization, however they differ in the way they perceive police-citizen relations. Monkkonen (1981) and Emsley (1983) focus their discussion on the role of capitalism in the evolution of the police, and highlight police reform/evolution as a means to monitor and ‘stabilize’ the disparity between the upper, lower and middle classes. From this perspective, the modern police force has evolved to maintain regional class differences between rich and poor and ensure the continued growth of capitalistic markets. A third perspective put forth by Fyfe (1991) is that of local histories, an explanation that suggests the evolution of the police force as being guided by regional characteristics in response to local/municipal level issues. Walker (1997) specifically notes the differences in American policing arising as a result of regional variation in public opinion; a large slave trade in the South required formal control from the police to ensure the social position of slaves and slave owners, whereas police in the economically-important North/North-East evolved to deal with public reaction to economic uncertainty and immigration. In both instances, regional variation arose not only in terms of mandate and utility, but also with regard to the relation between police and citizens.

More recently, research has focused on the changing nature of what constitutes ‘policing’ and the ‘police’, with studies focusing on the operation of modern police forces. Nolan et al. (2005) discusses the intersection of traditional police techniques, technology and situational awareness to form ‘situational policing’. Rather than utilizing a standard mandate or policing in the traditional sense, the authors describe how more and more police forces are striving to take into account situational variables, context and neighborhood information in an attempt to tailor their response to a given situation. From this perspective the police adapt to become, ideally,
what is required at that given moment. Sampson and Raudenbush (1999) discuss how the modern police force has adapted to play a role as part of a model of collective efficacy, wherein officers and departments play a supporting background role helping neighborhoods to enforce a collective decision of how social justice should be upheld in their community. This model places the citizen as consumer of police services first while relegating police to the role of attentive listeners and facilitators. Such a model of policing places a stronger focus on the wants of a neighborhood enacted through pre-existing police channels. Clark (2005) identifies a similar movement toward democratic policing, centered around many of the ideas of the original community ‘beat’ officers. Clark suggests that while bureaucratic policing (the current model) is effective for large scale policing, it neglects the needs of smaller neighborhoods. A move to democratic and victim-centered policing sees a police department continue to use its considerable bureaucratic resources, however the actual application of justice involves the use of these resources through neighborhood level agents. The result from this model of modern policing is that the police force is no longer a large conglomerate, but rather a blend of smaller units operating under its jurisdiction.

Owing to both a large physical environment and a swelling population, policing in the United States operates on the basis of overlapping jurisdictions, decentralized control and largely district-mandated authority. According to Klinger (1997) American policing is best viewed in terms of smaller sub-sections of geographical regions with responsibility given to regional and municipal governments rather than federal agencies. As Langworthy and Travis (1994) note, there may be anywhere from 15,000 to 20,000 police departments in the United States operating under state, district and municipal banners. The importance of viewing the actions of a police
force within distinct ecological ‘units’ is raised by Bayley (1985) in his categorization of police forces’ as falling into one of three possible distinctions: Centralization (single force), Centralization (multiple forces) and Decentralization. Where centralized single force systems are in place, there is one police force operating in a unified fashion over an entire aggregation of districts (i.e. a country), whereas centralized-multiple force and decentralized systems rely on regional authority and do not apply a consistent mandate or operating procedure to partner offices. There is some evidence to suggest that both centralized-multiple force and decentralized systems can result in ambiguous regional definitions of what constitutes normal crime versus deviant crime (Swigert & Farrel, 1977), the degree to which the victim deserves a given punishment (Stark, 1987; see also Fattah, 1993; Wolfgang, 1958), officer’s perception of the effectiveness of their actions (Waegel, 1981; Wiechman, 1979) and the nature of officer workload. With specific regard to workload, see Skolnick (1966) for a discussion on the impact of heavy caseloads on an officer’s ability to dedicate time and resources to any given case, a theme taken up further in the forthcoming sections.

When approaching variations in regional crime rates, it is important to include the subjective appraisal of where the threshold of normal behavior and deviance rests; in any given region, and outside of major crimes such as murder, assault and rape, crimes may be differentially assigned to normal (albeit ‘bad’) and deviant classifications. Rubinstein (1973) notes that this threshold varies by region on the basis of crime-rates; where there are higher rates of crime commission and no adequate increase in policing resources, officers are only able to deal with some criminal acts, often the most severe. Consequently, criminal acts not deemed to be severe enough to warrant action become normal, everyday and ‘part of the job’. In contrast,
regions with low delinquency allow officers to act on more offenses, lowering the threshold for what is considered deviant and resulting in more acts classified formally as criminal.

Further regional differences in crime rates can be seen at the intersection of suspect behavior and police interaction. Wolfgang (1958) discusses patterns in homicide where criminal acts committed against individuals seen as innocent illicit more immediate police response, whereas acts committed between individuals appraised to be ‘equally bad’ are given little response if any. Extrapolating to the regional level, we should expect to see reduced police response in areas of high criminal activity (criminals offending against criminals) and increased police response in areas of low criminal activity (criminals offending against victims). Indeed, Fattah (1993) regards the terms “victim” and “criminal” as being largely interchangeable as victims in one circumstance can be offenders in another, and vice-versa. From this standpoint we should expect to see lower levels of police-suspect interaction in high-crime areas, with the exception of the most severe crimes and a higher degree of police-suspect interaction in low-crime areas. Empirical support for this theory can be found in Pare and Felson’s (2010) study of regional variation in homicide and assault. The authors used National Crime Victimization Survey data from 1996-2004 in conjunction with supplemental homicide reports to determine the extent of regional and racial differences on homicide and assault levels. The study provides some evidence for an ‘adversary’ effect where individual criminal acts are mitigated by a perceived response by an adversary, however these types of encounters are higher in regions where gun ownership is also high. In typically high-homicide rate Southern states, homicides may arise out of a response to a perceived adversaries’ intention to act first. In low-homicide rate Northern states, assaults and homicides may be predatory rather than adversarial. Wolfgang (1958) and
Stark (1987) then appear to be correct when they conclude that officers who operate in high-
crime regions are hard-pressed to separate who is the victim and who is the offender.

Additionally, Boggs (1965) utilized factor analysis to determine the relative importance of a
variety of factors related to criminal actions, including location, profitability and offender-
victims relationships. Her research lead to the conclusion that certain crimes tended to cluster
together in distinct groups with the result that high-offender neighborhoods had higher rates of
violent crimes such as assault and homicide, whereas low-offender neighborhoods (those
adjacent to high-crime areas) were more likely to display activities related to routine activity
such as auto-theft, burglary and grand larceny. Boggs notes that predatory crimes typically are
concentrated outside of high-crime areas as the payoff is likely to be higher in low-crime, ‘high-
rank’ neighborhoods.

Regional crime variation may also be theorized in terms of localized accounts of what is
acceptable behavior and what is not. In an ethnographic study of inner-city Philadelphia,
Anderson (1999) discusses the role of an informal ‘code of the streets’ that influences the
behavior of individuals in any given neighborhood. In a given circumstance, criminal acts
committed to protect oneself or family, provide food or income or to establish credibility are all
largely ‘acceptable’ under a ‘code of the streets’; it is widely accepted that these acts are
necessary to survive in rough neighborhoods. Contrary to this, Anderson discusses a ‘code of
civility’ which largely influences the more typified ideals of modern life such as working hard,
going to school and being a responsible parent. Anderson’s work provides an interesting tangible
example of variation of regional attitudes towards crime commission and his notion of ‘code
switching’ lends support to Fattah’s (1993) more theoretical notion of the victim-criminal moniker as transitory.

A final perspective in environmental criminology is that of the interaction between the population of a given region and that region’s ability to police that population. The theories mentioned above do not operate independent of the nature of the environment within which they exist and thus are more or less likely to be in play in accordance with the structural factors allowing crime to be committed in one manner over another, for example a heavy police presence invalidates much of routine activity theory’s assessment of how crimes are committed. As mentioned previously, higher-crime areas typically result in police leniency for all but the most serious of crimes and, conversely, low-crime areas are found to have a greater police presence and response. Support for this perspective from a structural standpoint can be seen in Durkheim’s (1938) work on ‘stability of punishment’, which suggests that criminal justice systems’ ability to deal with crime operates on an equilibrium system, where severity of punishment is tied to the severity of the crime; when levels of deviance are high the bulk of punishment is directed to the most severe crimes, as the system does not have the capacity to punish each offender (see also Blumstein and Cohen, 1973). For a more empirical discussion of this topic, see Moynihan (1993). A second hypothesis addressing population and criminal justice resources is that of ‘overload’, postulating that an increase of deviance strains the justice system and included resources (such as police) resulting in less individual attention being given to each case. This has the overall effect of lowering a deviant’s appraisal of the certainty of punishment. Using a U.S Standard Metropolitan Statistical Area (SMSA) data as well as data gleaned from a variety of previously ‘unpublished’ sources, Geerken and Cove (1977) found strong statistical
support the deterrence hypothesis, suggesting that individual decisions to offend are based on the likelihood or certainty of punishment. When this certainty is reduced, criminal actions are seen as more favorable; when the certainty of punishment is increased, criminal actions are seen as detrimental to the criminal’s well being and are avoided until conditions improve. With this in mind, it can be seen that regional variation in crime rates cannot be explained by one or two indicators, but rather relies on the complex relationship between culture and environment

2.2 Theories of Crime

Distinct from environmental and ecological criminological theories this paper relies heavily on several foundational theories of crime, namely theories of ‘routine activity’ and ‘culture of violence’. These theories posit the motivation and social circumstances that lead to trends in crime and can be applied to address regional variation. There is some overlap with the environmental theories presented above, however both theories discuss more of the conditions for crime commission to occur (or not occur), rather than how crime commission is mitigated by police and suspect interaction.

Routine Activity, Culture of Violence and Socioeconomic Perspectives

While there have been myriad approaches explaining trends in crime with reference to routine activity theory, this paper draws on the approach outlined by Cohen & Felson which suggests that the routine activities of an individuals daily life can serve to either encourage or discourage the confluence of three major characteristics at the same time: an offender, a suitable target and a capable guardian. Drawing on the work of Amos Hawley (1950), the author suggests that a movement of routine activities away from the household can create the conditions necessary for the above mentioned characteristics necessary for crime commission. Repetto’s
(1947) study on residential crime trends uses victimization survey data, prison records and offender interviews to highlight the degree to which various neighborhoods actively supervise streets and limit criminals from moving into a ‘protected area’, thus providing both ‘capable guardianship’ while limiting ‘likely offenders’ and ‘suitable targets’. Concrete programs in place in these communities may include crime prevention programs, youth after school programs (capable of removing both likely offenders and suitable targets) and offender-rehabilitation programs. Further empirical support can be found in the work of Schmid (1960), Schmid (1932), Lottier (1938) and White (1932), all of whom utilize criminal justice reports to show a statistically higher distribution of criminal acts in urban and metropolitan areas, providing substantial support for the theory that the conditions of routine activity, and thus the location of criminal acts, are being concentrated away from the household and, accordingly, out of suburbia.

Though the classic studies above provide a thorough grounding in classical interpretations of routine-activity theory, more recent work has attempted to modernized these findings by attempting to track temporal aspects of offender-victim relationships. Ratcliffe (2002) has raised the questions of whose routine activities criminological research has a focus on. When crime data are recorded, they often take the victims experience of the offense perpetrated and thus can be seen as occurring along the lines of the victim’s routine activities rather than the offenders. The study notes that by looking at data that estimate the start and end times of a crime, police data can more accurately reflect the temporal range criminals are active rather than relying on what time the actual offense occurred (which does not coincide with an offenders actual ‘active’ time). Further to this, many researchers are now beginning to question the contextual role of the offender rather than granting the label of ‘offender’ to whoever is not
the ‘victim’. Paulsen and Robinson (2004) note that while offenders are a key component of routine activity theory, tests of the theory seldom include an actual measure of what motivates offenders, often taking this information (incorrectly) from what the victim believes motivated the offender. This new perspective places an emphasis on offending rather than victims and attempts to structure the offender as being in the right place at the right time, rather than the victim as having been in the wrong place at the wrong time. Looking at the ‘suitable target’ component of routine activity theory, Kuo et al. (2011) attempted to understand offender motivation as it pertains to the presentation of opportunities. The authors found that a majority of offenses could be found within a very narrow subsection of the population; multiple instances of crimes were not necessarily different instances of offending, but were rather cases of repeat victimization. This finding suggests that motivated offenders do not require a new target for every offense, but will continue to victimize a subject until they change their own routine activities or feel the payoff has been reduced. Wittebrood and Nieuwbeerta (2000) follow up on this perspective with their finding that social characteristics ranging from age and gender to education and marital status were all predictors of repeat victimization. The authors found, specifically, that social characteristics such as being female, younger, less educated and single all result in a higher rate of repeat victimization in ones’ routine activities, owing to physical weakness, lack of supervision, lack of judgement or a combination of all three components. Offenders may key on any one of these characteristics as part of their appraisal of target suitability, the likelihood of a capable guardian being present and in forming their own motivation (i.e what is there to gain).

Extending this perspective Osgood et al. (1996) utilize routine activity theory with the caveat that individual offenders also make an appraisal of how easy it is to commit an offense
and whether there is a worthwhile payoff. This position is echoed by Sutherland and Cressey (1978) who cite possible linkages between an individual's ability to deviate (commit a crime) and the way in which they choose to define the social context of the routine activities which have placed them in a position to offend. The authors suggest that the presence of a suitable target and lack of guardianship, while valid, are not enough to define a situation; the individual is also likely to use prior experience in order to choose how to define a given situation in addition to realizing an opportunity to commit an offense. To explain this theory, the authors draw on social bonding and differential association perspectives to explain how the subjective appraisal of a situation may be formulated, suggesting that it is tied to the individual's social network and level of belonging (similar to Durkheim’s ‘egoistic’ outlook). A study by Hawdon (1996) utilizes factor analysis to determine the relative importance of 7 ‘routine’ patterns influencing adolescent marijuana use (deviant act) as well as a regression to understand the order of importance of these patterns on influencing drug use. The results suggest that when the use of drugs by peers is decreased, individual use also decreases. Further, measures of involvement have a strong correlation with delinquency as measured by annual drug use, suggesting that increased involvement (social bonding) results in lower levels of delinquency. It would be correct, then, to consider tempering understandings of routine activities with the individual understanding of the context within which delinquency may occur, specifically the level of social attachment and the influence of peer groups. This particular perspective may aid in understanding the role of gangs and low adherence to mainstream values in understanding routine activity in high-crime regions.

Focusing specifically on routine activities in a social context, Bernburg and Thorlindsson (2001) utilize data from a National Survey of Icelandic Adolescents to determine the degree to
which social bonding effects deviant behavior with specific reference to how it effects the routine activities individuals choose distinct from a choice to offend. Using questionnaires and self-report surveys, the authors determined that the presence of social bonds through ‘conventional’ rather than ‘deviant’ channels reduces the effect differential association has on deviant behavior. Further, the presence of positive social bonds reduces the the effect of routine activities on deviance; that is, routine activity is presupposed by social bonds and positive bonds result in more constructive routine activities and decreased deviance.

Drawing on the victim rather than offender position, Averdijk (2010) expands the position advanced by Felson and Cohen (1979) that postulates a ‘suitable target’ as a necessary condition of a routine activity approach to understanding criminal acts. Averdijk utilizes the National Crime Victimization Survey (U.S data) and a fixed-effects regression model to assess the degree to which modification of routine activities effects victimization. The study concludes that individuals who are victimized during some activities such as shopping and evening outings are likely to modify their routines to avoid repeat victimization. The study however states that an overall modification of behavior after victimization is not likely and that a victim’s likelihood of changing behavior is tied to their perceived measure of effectiveness in a neighborhood context, such that high-crime low-police neighborhoods are likely to generate a constant stream of victims whereas low-crime high-police neighborhoods are likely to provide fewer targets. Essentially, those who believe they will be victimized regardless of where their routine activities lead them are less likely to modify behavior, whereas those who believe their victimization occurred because of a set circumstance are likely to avoid that circumstance. For further discussion on the spatial and temporal aspects of routine activity, specifically as they relate to
social bonds and differential activity, see Groff (2008), and for a discussion of issues in empirical modeling of routine activity, see also Huisman and Forer (1998), O’Sullivan and Haklay (2000), Eck (1995) and Akers (2000). In more recent research, Uludag et al. (2009) consider the breadth of demographic victim characteristics along with the characteristics common to routine activity theory (a motivated offender, lack of a capable guardian and a suitable target) as the strongest predictors of victimization, more so than measures of inequality, measures of regional democracy and economic development. This study is particularly important in that the authors used a multi-level regression to determine the relative importance of individual versus neighborhood level variable when assessing the role of routine activity in victimization. Adding to this, Thoroddur et al. (1998) expand on the tenets of routine activity, incorporating a ‘lifestyle’ approach to offender and victim circumstance within routine activity theory. The authors suggest that “…structural factors, interpersonal relations, patterns of behavior, and plain bad luck” (Thoroddur et al., 1998) all arise as part of a lifestyle that individuals either choose to adopt or are brought into through parental choices. The degree to which an individual victimizes or is victimized can be tied to the cultural and parental resources available to children, support for parents and the relationships between parents and family members. Most importantly, this article stresses the role of the parent as a capable guardian, preventing children from becoming either a willing offender or a suitable target.

Within the Criminological literature there is substantial evidence that points to regional trends in homicide rates, most of which suggests that Southern states and their residents are more likely to be the perpetrators of such crimes relative to North and North Western states. Hoffman’s (1925) study consider homicide statistics comparing the United States to other countries,
highlighting the higher rates among American’s broadly with a particular focus on the city of Memphis as having the highest homicide rates in the United States (and highest of all measures in the study). Further, Brearely (1932), Porterfield (1949) and Shannon (1954) all provide statistical evidence for a higher distribution of homicide rates in the Southern U.S than in the North, suggesting that regional differences are real and not a function of measurement differences. The degree to which the authors address the cause is varied, though Hackney (1969), utilizing a comparative analysis with European cities, eliminates the influence of non-cultural variables such as child rearing practices, family structure and individual measures of frustration and aggression in favor of cultural variables that highlight a less market-oriented and commercially interested ‘rural-South’. Building on this idea, Franklin’s (1965) cultural-historical study of the South links cultural attitudes of exploitation and violence to the early arrival of wealthy British landowners in the 17th century. This ‘rural aristocracy’ continued until the 19th century, exploiting poor white residents followed by african-americans during the slave trade and, finally, immigrants during the modern era. In addition to his historical account, Franklin provides some anecdotal evidence for the basis of a Southern culture of violence, including the enduring presence of the duel beyond it’s acceptability in the North, a propensity to carry guns, knives or other weapons, the nature of the South as a ‘frontier’ state well beyond that of other frontier states, as well as a cultural interest with military training and displays of force.

Cohen and Nisbett (1994) advance the historical approach as well, however they note the specific importance of the legitimation of responding to an aggressor or argument with violence during frontier times as one of the main factors behind the South’s culture of violence. The authors suggest that a cultural mandate to stand one’s ground and defend one’s honor created a
culture where argument-based homicides were seen as a part of life. Over time, this culture has been maintained throughout the rural South; Andreescu et. al (2011) empirically tests Cohen and Nisbett’s work by attempting to establish whether argument-based homicides are higher in regions where characteristics of ‘honor culture’ or a ‘culture of violence’ are present. The authors find that weak family ties, strong adherence to a predominantly conservative religious group, low neighborhood stability and economic disadvantage are all strongly tied to instances of argument-based homicides in Southern regions; instances of these predictors are considerably lower in the North, as are the associated argument-based homicides.

Contrary to this historical approach Hurlbert and Bankston (1998) raise the important issue of modernization, suggesting that there is a common academic concession to assume, for whatever reason, that the South has failed to evolve in time with the rest of the United States. The authors consider typically ‘Southern’ regional attitudes about violence, ethnicity, politics and religion and find that the views of non-Southerners and Southerners are more similar now than ever before, most specifically when discussing gun control and violence. These findings lead to the terming of the ‘New’ Old South, a reference to the fact that despite its historically frontier roots, the South has by no means stayed the same over the years. The conclusions drawn in this paper make a strong case for a unique Southern identity, however this identity may be relegated to those least affected by modernization. Lee and Ousey (2011) take this up further with a discussion as to the exact role of culture in a ‘culture of violence’ and attempt to determine whether culture acts alone, or whether there are structural forces at work as well. Using qualitative data retrieved from participant responses to situational vignettes depicting situations of conflict, the authors found that while culture provides the index of skills, reactions and
abilities necessary to deal with a situation, structural factors (economic status, education, ethnicity, etc.) influence how these culturally learned behaviors are doled out. Moreover structural constraints also provide the situations within which individuals tend to use culturally learned violent or defensive techniques. In areas of high crime an individual will typically use violent or defensive techniques when they believe the police are unable or unwilling to help, biased or generally cannot be trusted to do their job properly. In the high crime South, then, culturally learned defensive techniques and interpersonal violence may be seen as a response to a lack of police presence, capability or integrity.

Several studies, including Simpson (1965), Resissman (1965) Sindler (1963), Thompson (1967) and Wirth (1938) point to a shift in Southern culture away from suburban neighborhoods into a concentration of large, predominantly African-American and Hispanic urban centers that form a sprawling inner city. Building on urbanization as a base for an uprising in violence, Wolfgang and Ferracuti (1967) theorize a ‘sub-culture of violence’, one in which deviant norms and behavior are stressed as routine and everyday and are passed down over many generations. The authors suggest that a sub-culture of violence is necessary in the formation of a culture of violence, creating a ‘region’ of violence out of localized instances. This process occurs when violence, gun ownership, class differences and hostility between families and/or neighborhoods are given legitimacy as readily as non-deviant norms are legitimized in mainstream culture. Furthering this view, Gastil (1961) finds that groups with higher rates of homicide are likely to have differential learning experiences compared to those with low rates of homicide and, coupled with a culturally distinct set of rewards and punishments, individual choices to offend are equally explained by the culture surrounding the individual as they are by individual motivation; in many
cases culture and motivation are inseparable when evaluating behaviors. In the more modern context, Meares (1998) discusses the role that family structures play in mitigating crime and how the need to provide for an often large extended family can outweigh the moral dilemma of a criminal lifestyle. Meares also suggests that preexisting trends in crime such as the drug trade and gang activity serve to disrupt small minority neighborhoods with the result that crime is instilled as a de facto heritage.

To quantify the effect of cultural explanations and, thus, a culture of violence explanation for homicide requires the removal of competing hypotheses in conjunction with significant indicators of noticeable homicide trends found in the South. In a quantitative-historical study of the U.S homicide rates, Gastil (1971) applies a multiple regression model to aggregate data on U.S homicide statistics controlling for competing demographic and economic variables that may also explain differences in homicide trends in the Northern versus Southern United States. Gastil’s findings indicate that while demographic and economic variables such as age, ethnicity, median income and education account for some of the variance, a measure highlighting the effect of Southerners moving into Northern states (and vice-versa) suggests that ‘Southerness’ or a ‘Southern culture of violence’ still remains as a much more important factor towards understanding differences in homicide rates between the North and South.

Clarifying this distinction between culture and other potential explanations, Pare and Felson (2010) used National Violence Against Women (And Men) Survey data to determine what role, if any, region and ethnicity have on influencing individuals to carry weapons. The authors determined that White Southerners as well as White Westerners were more likely to carry a gun for protective purposes then were White Northerners. Controlling for the threat of victimization
(i.e carrying a weapon because one expects to be victimized), the authors found no change in the
initial relationship and concluded that differences between North and South/West were primarily
due to cultural differences and the presence of a ‘Gun Culture’. It is important to note that the
authors do not specify the type of gun culture (i.e for protection, for credibility, etc.) and suggest
that there is limited, if any, evidence at all for the presence of an honor culture. It appears then
that from both qualitative historical data and quantitative crime statistics, there is a definite case
to be made for the presence of a culture of violence in the South.

In addition to the cultural and activity based theories of crime presented above it is
important to have a solid understanding of the socioeconomic theories of crime as well, as they
are largely intertwined with cultural and individual-social explanations. Hawkins et. al (2000)
note that, with specific reference to violent crime, African-Americans have higher rates of crime
commission than do white Americans. At the most simplistic level, Werthman and Piliavin
(1967) use interview data to describe how officers from a variety of Californian jurisdictions
differentially associate the types of offenders they expect to encounter based solely on the type of
neighborhood they are entering. The officers responded that they encountered more suspicious
individuals in neighborhoods categorized as ‘bad’ versus those categorized as normal. Further,
the authors note that officers were quick to apply the socioeconomic characteristics of the
neighborhood (high status, low status, impoverished) to all individuals they encountered from
that neighborhood regardless of the true nature of that individual. Smith (1986) furthers this
position by noting that initial data from the Police Services Study suggested officers were more
likely to use force on African-American suspects, however more in depth analyses determined
that this finding was tempered with neighborhood context resulting in the conclusion that
officers were not influenced by the ethnicity of any one individual alone, but rather were influenced by the racial composition of the neighborhood in which the encounter took place. Terrill and Reiseg (2003) reaffirm Smith’s ‘ecological contamination’ hypothesis using data from the Project on Policing Neighborhoods study. Using a weighted-least squares (WLS) regression, the authors determine that police officers are much more likely to use higher levels of force in encounters with suspects from high-crime, low-socioeconomic status and concentrated disadvantage neighborhoods than against suspects from other neighborhoods. Further, the relationship remains strong when controlling for the behavior of the suspect, employment/unemployment and several other demographic/economic variables.

### 2.3 The Use of Force By Police

Theories about the way in which police use force, how force is categorized and the relationship between the use of force by police and the reception of such force by offenders is often varied. While police reports often indicate why force was used, Victim support groups contend that force is often used without any real forethought. The literature reviewed below for this paper attempts to separate self-report and qualitative appraisals of how and when force is used, as well as how force is categorized, from quantitative statistical reports that highlight trends in the application of force. While the subjective opinion is valid, the data is simply too varied to form a comprehensive account of exactly what happens during any police-suspect encounter as both parties are unlikely to agree on a series of events for any number of reasons.

**Conceptualizing Force, Officer Opinion and The Suspect**

Policing literature aimed at understanding the relationship between the police, suspects and the application of force is prevalent and there is no shortage of detailed descriptions of how
force is applied in a given encounter. There remains some disparity, however, on exactly how force-continuum construction should proceed. Some authors suggest that force can only occur with the use of a weapon (Croft, 1965), with verbal cues and weaponless tactics (Garner et al., 1995), with physical searches and handcuffs (Terrill and Mastrofski, 2002) and threats of arrest rather than actual arrest (Terrill and Mastrofski, 2002). Arguably, there is a tendency for authors to create a force continuum that best suits the needs of their research often relying on what is available in the data to reliably estimate the progression of force over many cases. In a study of the characteristics of police-suspect force encounters, Garner et al. (2002) note that there is a huge disparity between researchers as to what constitutes physical force broadly and what constitutes a force-continuum specifically. The authors highlight the range of measurement styles across research spanning roughly 20 years, with the only noticeable, consistent difference found in a choice to view force as a dichotomous variable (used or not used) versus force spread over some form of continuum. Even among police departments, there appears to be little consensus as to what constitutes an appropriate means to establish a force continuum, as Terrill and Paoline (2007) note the inability of widely used ‘policy driven’ continuums to work in an applied setting. Further to this has been the rise of studies that seek to ascertain the use of force by police alongside the use of force by suspects. Previous literature is primarily concerned with quantifying how much force police used, but pays little or no attention to what amount of force suspects are using. This measure is important as it helps to qualify the amount of force police are using; a particular force technique may seem ‘severe’, however when referenced to the level of force being put up by a suspect it may seem less then adequate or even conservative given the situation.
In recent years the use of force by police has been re-conceptualized as existing on a continuum rather than as a dichotomous ‘use’ ‘non-use’ scale, so it is worth noting that literature concerned with dichotomous description of force has been left out of this review. Sykes and Brent (1980) were among the first to use force as a continuous measure, conceptualizing of police as deciding to use a level of force rather than making a decision to use force of any variety (i.e whatever was quickest, easiest or readily available). The authors research frames force as a tool that is not simply used out of availability but rather maintains some form of contextual component that requires police to match a level of force to particular situation. In an ethnographic study of police force behaviors, Skolnick and Fyfe (1993) create a detailed use-of-force continuum that includes presence, verbalization, command voice, firm grip, pain compliance technique, impact technique and deadly force. This continuum, created from field observations, officer self-report data and criminal justice records considers force not only as a physical treatment but also includes verbal and authoritative gestures as being categorized as ‘forceful’. The authors also note that it is important to understand that police are trained to apply a level of force towards suspect resistance that is one level higher than that which the suspect is using, this ensures that the suspect is controlled rather than merely defended against. Indeed much of the recent literature has tended to focus on police force not as a single party event, but as an event that occurs due to the confluence of police and suspects in time and space. Alpert and Dunham (1997) assess the nature of this relationship between suspects and police by creating a measurable ‘force factor’ which accounts for both suspect resistance and police force. In this study, the police force-continuum includes no force, minimal force, forcibly subduing suspect (hands), forcibly subduing suspect (other method) and the suspect force-continuum is composed
of no resistance, passive resistance, active resistance and assaulting an officer. To reach a
measure of excessive force (force factor) the authors subtract the level of citizen force from the
level of police force; any resulting disparity in either direction is evidence of excessive suspect
resistance or excessive police force. In more recent work Alpert and Dunham (2004) discuss the
nature of the police-suspect interaction and how the encounter frames what force is to be used.
The authors note a principle of authority-maintenance, which suggests officers are trained to use
a level of force (relative to the suspects) that maintains their authority, that is, maintains their role
as being in control. This role necessitates a level of force that is greater by some degree than that
presented by the suspect. In a similar vein, Terrill and Reisig (2003) analyzed force used over 80
neighborhoods in two cities and found the most common patterns in escalating force were: 1) no
force, 2) verbal force, 3) restraint techniques and 4) impact methods (pepper spray, taser, etc.).
When questioning officers about their views on a force continuum, Paoline and Terrill (2011)
found that relative to official departmental guidelines officers tended to use a more conservative
(lower) level of force compared to the level of suspect resistance then would be expected if they
escalated according guidelines from officer training, suggesting that any true force-continuum
must apply in the field as much as on paper.

In terms of real numbers, Fridell (1993) found that per 1,000 officers, the rate at which
deadly force or force capable of inflicting serious injury was applied was less than 1. In addition
to these numbers the study found higher rates of bodily force (272.1/1,000), use of handcuffs
(490.4/1,000) and the unholstering (but not use) of weapons (129.9/1,000). This data is in line
with data from a 2001 International Association of Chief’s of Police (IACP) report that found the
three most common force techniques officers used in the preceding year were physical force,
chemical force and impact force (such as a night stick), respectively. Many sources, including Adams (1999), Bayley and Garofalo (1989), Garner, Maxwell and Heraux (2002) and Garner, Schade, Hepburn and Buchanan (1996) all point to physical restraint such as grabbing or holding as the most common outcome of a suspect-officer encounter, discounting handcuffs, and suggest that the use of knives or other weapons by either suspect or police is relatively infrequent.

Another topic prevalent in the use-of-force literature is that of officer opinions and the relationship between officer opinion and potentially forceful encounters. Predominantly, the literature surrounding police attitudes and beliefs is concentrated around studies of police cynicism, mistrust of the criminal justice system and disenchantment. Terrill and Reisig (2003) discuss this topic at length, highlighting the tendency of police to presume that an individual observed in a bad neighborhood must be there to engage in some form of deviant behavior, reiterating the importance of the previously noted ‘contamination hypothesis’. The authors suggest that police opinion forms over many years and repeated encounters, noting that instances of ‘bad’ encounters are often numerically fewer than non-violent encounters but result in a lasting opinion of a given area and its residence as inherently deviant. In addition to suspect resistance, police move up the force-continuum selectively depending on the neighborhood they are entering, thus officers operating in high-crime neighborhoods are likely to start at a higher level of the continuum relative to officers operating in a low-crime neighborhood. Weitzer (1999) adds to this discussion by adding that high-crime neighborhoods typically maintain fewer avenues to address use and abuse of power by the police with the result that police behavior is likely to go unreported and without remand; residents of high-crime neighborhoods thus see police as perpetrators and are likely to view them less favorably in addition to being reticent to
cooperating with them. Police opinions of certain neighborhoods then tend to reinforce a negative view of, and combative behavior towards, the police resulting in higher likelihood of force being used in any given encounter. For a further reading on this cycle see Black’s (1976) *The Manners and Customs of Police*.

Focusing on individual suspects Reiss and Bordua (1967) hypothesized that police treated suspects based on a subjective appraisal of their characteristics and immediate context. The authors note the presence of a ‘dirtbag syndrome’ wherein officers assess the level of force to use on a suspect based on their selective appraisal of deservedness. In a related, although separate discussion, some authors note the leading role that police cynicism plays when examining the role of suspect characteristics and its effect on police use-of-force. Niederhoffer (1967) utilizes first hand experience as a New York Police Department officer as well as mail-out survey questionnaires to gauge levels of police cynicism, concluding that officer cynicism often changes the nature of the police-suspect encounter. In fact, and with specific reference to regional variation, in a study of over 250 police officers Regoli and Poole (1979) examined the degree to which police cynicism operated through a range of departments. The authors found that when police believed they had a distinct ‘calling’ to the field of criminal justice (policing) and believed their level of autonomy to be high, they were reported to have less cynical job outlooks. Drawing on similar suspect-officer appraisals Turk (1969) proposed suspect encounters as a matter of ‘norm resistance’ and not necessarily a reflection of how officers or suspects view each other. Turk states that the power relation between an authority figure and a subordinate provides enough of the spark to start a confrontation and that assuming ethnicity, class or culture differences between officers is ill-informed. Turk’s theory thus postulates a preexisting
relationship between suspects who wish to resist proscribed normative behavior and officers who wish to do their jobs, other factors are seldom at fault. Weidner and Terrill (2004) found some support for Turk’s theories, namely that demographic characteristics are not nearly as important as situational factors such as the complexity of the situation, officer knowledge, whether or not there were bystanders and whether potential bystanders/members of the community were encouraging or discouraging norm-resistant behavior. This finding suggests that the regional variation in the use of force by police also reflects heavily on officer characteristics and their views on the nature of their work.

A final area worthwhile of investigation is that of suspect resistance as it relates to the use of force by police. Terrill et al. (2003) found that suspect resistance is of paramount importance in understanding not only the motivation for an officer to act in a certain way, but also as a means to understanding the context in which the encounter took place. Burns and Crawford (2002) report that, contrary to a commonly held belief, police force occurs in response to suspect resistance, thus being seen more as instigation rather than resistance. Studies by MacDonald et al. (2003), Terrill (2001) and Garner and Maxwell (1999) all put forth evidence that the force employed by a suspect (level of resistance) was in nearly all cases higher than the level of force initially and subsequently used by officers, suggesting that officers cannot move along a force continuum in a set pattern but must adjust to the behaviors of the suspect they are attempting to contain. As Garner, Maxwell and Heraux (2002) point out, ‘non-negotiable’ force is at the centre of police legitimacy in society; this power however is typically seen to override any right by the offender to fight back often leading suspect-force to escape classification, either because it is not seen as legitimate or rather it is ignored completely as an unstructured ‘result’ of police
intervention. Due to this differential between the police having a force mandate and suspects being free to choose their actions few, if any, studies accurately track the use of force by police side by side with suspect resistance. It is important to remember that while police have a largely scripted encounter with suspects in terms of how to proceed under certain circumstances and a very controlled mandate to apply force, suspects do not have to follow any guidelines or protocol and are thus unpredictable in their behaviors. Add to this the fact that suspects may be using drugs, alcohol or be in a great deal of mental anguish (characteristics contrary to what is expected of police officers) and a situation arises where suspect force is highly unpredictable at the time of arrest. While police may report to what degree they followed protocol and, as required by their departments, disclosed any force used suspects are not required to do the same and often are appraised as either having resisted or not. Some evidence does exist for classifying predictors of suspect resistance and accordingly levels of suspect resistance; Crawford and Burns (2010) find that conceptualizing of suspect force along the same lines as police force is not entirely logical (owing to the above reasons) however they suggest suspect demeanor as a strong predictor of suspect behavior and eventual resistance. In a study of small-agency forces Terrill, Leinfelt and Kwak (2008) found that in 3,264 arrests catalogued over three years the majority of suspect force was concentrated at the higher end of the spectrum (defined as ‘defensive’ or active’) whereas the amount of force used by police fell in the lower end of the spectrum (defined as ‘control’). Both the presence of suspect resistance in any form and the amount of resistance from a suspect remain the strongest predictors of police use of force.

The nature of suspect-officer encounters is such that officers will temper their behaviors to a perceived threat from suspects while suspects will adjust their behaviors based on
situational, social or contextual factors they perceive to be at work (such as a cost benefit
analysis, potential risks, likelihood of success). These subtle differences, however, mean that
research will typically focus on the easily quantifiable and systematic approach of police while
relegating suspect force to a category of irrational, unpredictable and largely qualitative behavior.

2.4 Alternative Perspectives

Professionalism

There is some evidence to point towards the role of police professionalism in
understanding how and why police use a certain level of force in any given situation, though
understandings of professionalism are seen to vary from region to region. Regoli and Poole
(1979) linked professionalism to belief in personal autonomy, self-centered careerism (the desire
to move up) and a strong personal belief that views police work as one’s life work. As increases
in each of these aspects are seen so too is an officer’s sense of professionalism, though this
relationship maintains a negative relationship with cynicism suggesting that those officers who
consider themselves the most cynical also see themselves as the least professional and as
operating as ‘rogue’ crime fighters. Conversely those officers who see themselves as the most
professional are more likely to have a greater adhesion to institutional rules and acting
‘professional’; whether this is an internalized belief or simply a precursor to climbing the career
ladder remains unknown.

Using a mail-out survey to nearly 570 employees working in a range of professional
fields, Hall (1968) found substantial evidence that a sense of professionalism across all career
choices tends to be tied up with bureaucracy; individuals who felt the lowest levels of
professionalism in their work also reported highly bureaucratic and routinized day to day
activities, whereas the opposite was true for those who reported high levels of professionalism in their day to day work. The findings also note a tendency towards those claiming high levels of professionalism to work by-the-book, rather than attempting to cut corners or shortcut their daily work.

With regard to intra-officer professionalism (pairs of officers operating outside of a department), Tedeschi and Felson (1994) note the strong influence of peer appraisal on arrest habits. The authors demonstrate that officers who are being disrespected by an uncooperative suspect are more likely to use a greater level of force and ultimately arrest the suspect in the presence of peers. Further, officers tend to report feeling more confident in their ability to use a level of force or make an arrest with the knowledge that one or more officers are present should the situation get out of control and require back up. Klinger (1996) adds to this position suggesting that bystanders, in addition to other officers, may also influence an officers choice of how much force to use and whether or not to arrest a subject. In a situation where an unruly suspect challenges an officers authority, the officer acts out of a combination self-preservation/self-presentation to regain his or her position as an authority figure ensuring that those watching do not feel as though the suspect has undermined or delegitimized the officers role as an authority figure.

**Sociodemographic Variables Outside of Neighborhood Context**

A good portion of the literature deals with the important role that a suspects sociodemographic characteristics play in predicting the level of force used against them, but few have examined these variables outside of a neighborhood context. Smith (1986), Terrill and Reisig (2003) and Black (1976) all provide evidence that, when taking neighborhood context out of the analysis
and focusing on an individual-level model, being poor, African-American, from a female-headed family and unemployed are all strong indicators that a suspect, regardless of physical location, is likely to have a higher level of force used against them. Black (1976) explains some of these results by noting that minorities have less direct access to the law for protective purposes (such as hiring a lawyer, talking to a police officer) and are more susceptible to having the law used against them in the form of arrests, formal charges and police force. Further evidence from both Black (1980) and Klinger (1997) point to an escalation of force between a minority suspect and a white police officers relative to a minority officer, however once placed in a neighborhood of high-crime this relationship tends to disappear. Contrary, or perhaps acting through an unknown related causal mechanism, Visher (1981) and Smith and Visher and Davidson (1984) found in simulations that officer behavior was not affected by variables such as ethnicity and sex but rather behavior was linked to the type of crime being committed. The authors highlight that sociodemographic variables could appear to be linked to police use of force in instances where similar sociodemographic groups have a propensity to commit certain crimes, however this conclusion requires greater in-depth analysis. With respect to the variables utilized in this paper, there is also a good deal of previous work done on gender, substance use, mental history and age as they relate to suspect behavior and propensity to encounter force with the police. Ho (2003) utilized a study of male and female domestic violence arrests data to determine whether or not police differentially arrested men and women in similar circumstances. The study found that while overall arrest rates are similar for males and females and that a similar pattern of characteristics influencing whether or not the officer chose to arrest the individual (such as the presence of witnesses and breadth of victim injuries) are present, officers were more likely to
incorporate more outside factors into their decision to arrest males over females. Most importantly officers were more likely to arrest males who presented weapons or showed aggression. Fayerham (1981) and Fyfe et al. (1997) support these findings with research that concludes that in cases of felony-level assaults, females are taken into custody much less frequently than males though this changes for younger females and in the presence of bystanders. Further, Garner et al. (2002) found that police typically use more force in all circumstances against males versus females even when controlling for the amount of suspect resistance.

Regarding ethnicity, the authors also found that while more force is typically used against African-American suspects than White suspects this relationship disappears when the level of resistance is controlled for. Considering ethnicity as an interaction with overall suspect behavior Engel et al. (2000) found that suspect ethnicity was not a statistically significant predictor over and above the behavior of the suspect at the time of the encounter, suggesting that suspects who resist at all levels are treated similarly regardless of ethnicity. Mental impairment, that is the presence of any diagnosed or undiagnosed mental disorder has also been shown to alter both how a suspect is understood by police (commonly incorporated into a reading of suspect ‘demeanor’) and how the suspect acts towards police. Link et. al (1999) consider mental impairment as changing the nature of the suspect-officer encounter in much the same way as drugs, alcohol or emotional distress. The authors discuss misinterpretation of officer commands, poor comprehension of the outcomes of their actions, unpredictable behavior and irritation as the chief factors in escalating the level of force used by police. Similarly, Novak and Engel (2005) found that suspects with mental impairment and disorders were more likely to appear as hostile, confrontational and disrespectful to officers. Though officers consider these factors during arrest
as part of suspect ‘demeanor’ they may also be aware of mental conditions and in many cases are
less likely to arrest the individual with this knowledge. The authors also found considerable
support for the premise that in addition to mental impairment, being under the influence of drugs
and alcohol have a sizable effect on how a suspect will be treated by police. For both males and
females intoxication by either drugs or alcohol increases both the chances of arrest and the
likelihood that a higher level of force will be used, relative to suspects who are sober.

Considering suspect education, fewer studies exist to determine the full effects of education on
police-suspect encounter. Though there is a wealth of information on the effect of officer
education and probability of using force (see Terrill and Paoline, 2007; Donahue and Levitt,
2001; and Kochel, Wilson and Mastrofski, 2011), suspect education is typically linked to the type
of crime committed. For example Sherman and Berk (1984) point out the considerable role
education plays in mitigating domestic violence; those with lower education typically engage in
more violent acts towards a partner and are more likely to offend in this respect. Further, Lochner
and Moretti (2001) find that the completion of high school reduces individual involvement in
crime significantly though more for African-American youth then for their white counterparts.
The authors conclude that the large institutional benefit of education, according to their analyses,
can be seen as crime prevention in urban neighborhoods.

2.5 The Current Study

Using multivariate regression analysis, specifically multi-level regression modeling, this
paper endeavors to understand regional variations in the level of force used by police during
suspect encounters while controlling for individual differences between suspects. More
specifically this paper suggests that lower levels of police-suspect violence are present in the
Southern United States owning to a culture of violence that sees criminal activities as a way of life with only the most severe crimes warranting police attention. Further suspect-officer relationships characterized by a mutual fear between officers and offenders helps to mitigate the amount of force used in any given encounter; both suspect and officer are less likely to approach each other fearing an inflamed response (one that is characteristic of a Southern Culture of Violence). Conversely, higher levels of police-suspect violence are likely to be found in the Northern United states as a result of crimes that can best be explained by routine activity theory which highlights the predatory nature of these offenses. The suspect-officer relationship is again a mitigating factor in the North however, relative to the South, officers do not fear suspects or their responses and utilize a more heavy-handed approach. Such a relationship emerges as offenders are seen as individuals committing crime rather than hardened criminals engaging in criminal behaviors, thus lowering the officers subjective appraisal of danger.

In addition to these macro-level concepts, this paper looks into the micro-level causes of these unique Northern and Southern cultures, attempting to untangle the complex relationship between the use of force, suspect characteristics and policing.
*Prior to June 1984, the Midwest Region was designated as the North Central Region.

**REGION 1: NORTHEAST**

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<td></td>
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<tr>
<td></td>
<td>South Dakota</td>
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</table>

**REGION 2: MIDWEST***

<table>
<thead>
<tr>
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<tbody>
<tr>
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<td>Texas</td>
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</table>

***Prior to June 1984, the Midwest Region was designated as the North Central Region.
*Prior to June 1984, the Midwest Region was designated as the North Central Region
Chapter 3: Research Methodology and Analytic Technique
3.1 The Survey of Inmates in State and Federal Correctional Facilities, 2004

This study utilizes the Survey of Inmates in State and Federal Correctional Facilities, 2004 (SISFCF) a composite data set generated from both the 2004 Survey of Inmates in State Correctional Facilities (SISCF) and 2004 Survey of Inmates in Federal Correctional Facilities (SIFCF). Created by the United States Department of Justice Bureau of Justice Statistics, the SISFCF aims to provide a national representative sample of inmates being held in state and federally owned and operated prisons. The 2004 data set provides information gathered from interviews taking place between October 2003 and May 2004 and asks inmates about a range of topics from current and past sentencing, drug use and treatment, to demographic data, family information and the use of programs while in prison. The target population for these surveys were male and female inmates currently incarcerated, regardless of sentencing, residing in either a state or federal prison. At the state level the SISCF utilized two universe files from the Bureau of Justice Statistics 2000 Census of State and Federal Correctional Facilities. The first such file contained a list of 1,549 state prisons while the second contained 36 prisons, specifically opened between June 30, 2000 and April 1, 2003. At the Federal level the SIFCF utilized a Federal Bureau of Prisons register of 148 prisons holding a population as of January 4, 2003. To gather a final sample the SISFCF used a two stage sampling design, selecting prisons at the first stage and inmates within selected prisons at the second stage. At initial selection the survey considers 1,401 male prisons with 1,115,853 male inmates and 357 female prisons with 77,404 female inmates. At the State level the SISFCF maintains a sample of 13,098 male and 3,054 female inmates, from 231 male and 70 female prisons. Of this sample, 11,569 male inmates and 2,930 female inmates were interviewed from 225 male and 62 female facilities. At the federal level
there were a total of 40 federal prisons selected, with 39 (31 male, 8 female) opting to participate; 3, 244 inmates were selected for survey participation with a final tally of 3,686 being interviewed of which 2,728 were male and 958 were female. The total population sampled was 20,405 inmates with 18,185 inmates completing full interviews. The non-response rate was 10.88% for State inmates and 15.83% for federal inmates, resulting in a total of 2,220 sampled inmates opting not to participate.

While the total sample size of the 2004 SISFCF for inmates completing full interviews was 18,185 the focus placed on residency and incidents requiring the use of force by police necessitates the presence of missing cases. Inmates for whom information was not available on the location of arrest, force used against police and force used by police were not included in the final sample for analysis. Further, inmates residing in U.S regions not geographically proximate to the United States (Puerto Rico and Hawaii) were left out of the analysis as they do not fall under one of the four Census regions. The final sample sized used for analysis in this paper is 17,690, factoring in non-response and missing data.

Though there is a wealth of great information provided in this data set the nature of this paper necessitates the removal of certain segments of the population, most notably those providing an unclear response or no response at all to certain survey questions. As this paper focuses on police use of force and regional variation, individuals who did not report both the use of force and the location of their arrest could not be utilized as part of the final sample.

As Camp (2001) notes, one major flaw with extrapolating from survey data in prisons is that they are taken at the individual level but often used to reflect current and future trends in prison ‘attitudes’, a view that shifts the unit of measure from the individual to an aggregate. An
example of this may be individual level survey questions that ask about an individuals past offenses followed by a transition to aggregating the data to say that a whole prison population is characteristically ‘violent’ or ‘non-violent’. Such a transition, Camp argues, is seldom considered when survey data is manipulated and used to characterize an entire population. Though this paper is not immune to this problem the use of a multi-level regression model largely counters any issues as this model allows the nesting of individuals into like groups (regions) resulting in an aggregate that *is* representative without attempting to speak for an entire prison population, as these populations often represent multiple offender regions in the United States (see also Horney, Osgood, & Marshall, 1995; Rountree, Land, & Miethe, 1994). Further to this, there is a great deal of literature that discusses the degree of coercion that can be at play in any given prison population as the participants may feel their participation shows good behavior, a willingness to cooperate or some other positive trait and thus may not be participating out of pure free will. Further, evidence exists that points to the nature of prisons as total institutions being at odds with the nature of research as being undertaken in a free and safe environment; social desirability theories would suggest that individuals complete their surveys because they feel required to do so (perhaps they see this as paying their dues). Logan (2011) points to the role of the researcher as a possible draw back noting that inmate responses can be largely a reflection of how to question is phrased, how it is interpreted and what prompts follow a given answer; while some individuals may deal with experienced researchers, inexperienced or poorly trained interviewers may allow for survey results that are not entirely accurate (Bound et. al, 2001). Further, Coleman and Moynihan (1996) raise the issue of underreporting in crime, a concept that is carried through to the prison population by an inability or unwillingness to admit to all crimes committed. In
many instances offenders will only recall or report their most recent crime(s) or those that lead to their current incarceration. Such underreporting results in research estimates that may not entirely line up with estimates generated by official census work or prison publications.

Tangent to the ideas of reporting and over-reporting, it is important to note that this study uses a prison population which is markedly different from an everyday sampling of the entire population of a given region for several important reasons. First, a prison population by definition can only include those individuals who were caught, prosecuted and sentenced for committing a crime and it may be argued that the sample is selective for an unknown characteristic that may lead to the individual being caught in the first place. While it is not possible to know what this characteristic is or whether it actually exists, it is important to understand that this may be a possibility. Second, a prison sample is not representative of all suspect-officer encounters but is rather representative of all suspect-officer encounters where the offender was ultimately prosecuted and sentenced for their crime. Encounters where an individual was released or remanded to a facility other than one of the state or federal prisons in this study may not necessarily fit with the findings of this paper, nor do they necessarily conform to the structure presented in this sample. Finally, owing to their admission to a state or federal correctional facility versus a local ‘jail’ or mental health centre, the inmates sampled in this study can best be classified as ‘serious’ criminals and thus the results of this sample are best generalized to officer encounters with serious criminals, that is, those likely having a preexisting criminal record and those having committed more serious/federal offenses.

While there are some definitive drawbacks to the use of survey measures, specifically those utilized in a prison setting, the SISFCF 2004 provides a level of specificity and depth that
is very near the top of the range for what is available today. The creators of this data set have utilized questions that ascertain not only what types of crime have been committed and by whom, but have also added a wealth of contextual and situational questions that allow criminological research to delve more deeply into the underlying causes and context of crime in the United States. The use of regional factors, such as where crimes were committed, where offenders are from and where they were arrested allows for an understanding of regional variation that goes beyond where a crime took place; the use of several mental health indicators fosters an understanding of mental health and mental health treatment as not only a one-shot occurrence but as a pattern that emerges over the life course; measures on drug use at both the global (i.e ever having used) and individual (i.e drug type) level allows a greater understanding of the role certain drugs play in relation to certain criminal acts. In addition to these factors this data set is unique in that it tracks both police and suspect force during the arrest, which was mentioned earlier as a rare occurrence in the police use of force literature

3.2 Variables

As noted previously, the *SISFCF 2004* provides a great depth of information with reference to geographical factors concerning criminals, crimes and arrests; more specifically, the survey includes information as to where the offender was arrested for their most current offense (the one resulting in their current incarceration). In addition to this piece of information each inmate-officer encounter that lead to the current sentence is also tied to the level of force used by both officers and suspects during that encounter, allowing the systematic analysis of how much force is used in any given encounter, in any given geographical region. The majority of variables are coded in accordance with preexisting conventions for binary coding (i.e race, gender), and
where standards do not exist variable coding is informed by previously existing literature and similar studies.

**Dependent Variable**

Though there are many potential codings for a scale of police force, this paper relies on the work of Terrill and Reisig (2003) as a basis for coding and scaling police force. The dependent variable in this study is ‘Scaled Police Force’ and it is comprised of 6 measures of increasing severity: 0) *No use of force*; 1) *use or threaten physical force*; 2) *push, grab, kick or hit*; 3) *release attack dog*; 4) *use chemical or pepper spray*; 5) *pointing gun (no discharge)*; 6) *firing gun (discharge)*. The measurement pattern in this variable does not simply progress from verbal to physical, but also progresses from least severe to most severe in terms of psychological impact on the suspect; arguably pointing a weapon has a lower overall physical impact than pushing or grabbing however the act has a much larger impact in terms of what it means to the suspect (such as potential for escalation, the seriousness of the officer or the potential for greater harm). This variable is coded as a scale from 0-6, and treated as a continuous variable. ‘Scaled Police Force’ is coded in such a way that only a respondent’s most severe response is retained. This is done in an attempt to prevent an inflation of the number of encounters per individual.

**Independent Variables**

The key independent variables in this study are the level of suspect force, the census region within which the individual was arrested for their current offense, whether the offense is considered violent or non violent, aggregate homicide and violent crimes rates by region and the individuals drug use in the month prior to arrest. Suspect force is measured in much the same way as the scale of police force and, in fact, every effort was made to ensure similarity between
the two measures to allow for consistency in interpretation (such that what is considered ‘high’ or ‘low’ force is roughly equal in both instances). Categories for ‘suspect force’ are: 0) No Resistance or Compliance; 1) verbal: argue, insult or disobey; 2) verbal: threaten; 3) resist search, arrest, or attempt escape; 4) fight with police; 5) threaten police with a weapon; 6) use of weapon to assault police. Respondents were asked whether they had used a set level of force against an officer, and a response of ‘1’ indicates an individual having used the corresponding level of force and a response of ‘0’ indicates the respondent did not use that level of force, but may have used another. This information is used to create a scale of suspect use of force from 0-6. To map the geographical regions within which current inmates were arrested required a model that best represented all regions of the US equally and for this reason the United States Census standard 4 region model was used; Figure 1 (p.37) and Figure 2 (p.38) provide a full breakdown. Respondents were asked ‘in which state were you arrested’, providing either the name of a state or one of several non-response options. The census regional variable was coded by grouping each individual state-level answer into one of the 4 distinct regions: Northeast, Midwest, West and South. Through this recoding each individual is placed into the region within which their state of arrest falls, nesting individual responses into large regional groups. To determine whether an individual offense was considered violent or not, a composite variable was created called ‘violent offense’. Initially, respondents were asked two questions: 1) was this [current] offense considered violent and 2) was this [current] offense considered non-violent. The new variable was recoded as binary, with the result that when an individual answered ‘1’ to the first question or ‘0’ to the second question, their offense was considered violent, with the inverse also being true. A result of ‘1’ on the new variable translates to a violent offense while a
response of ‘0’ means the offense was non-violent. Two aggregate measures of both violent
crime rates and homicide rates in the 5 years preceding the survey were also included and they
converted state-level rates into regional rates. The aggregate measures for violent crimes and
property crime rates were comprised of violent crime and homicide rates for each state over the 5
year period leading up to the completion of the 2004 survey and separated as per the U.S census
4 region model. While these measures are an important step in ensuring there are no spikes in
crime that may account for trends found in the data, a large proportion of inmates committed
their crimes prior to this data being accumulated and thus predictive ability is limited to those
crimes committed within the past 5 years. Unfortunately, the logistics of assembling the depth of
crime-rate data necessary are beyond the scope of this paper. These variables are interpreted as a
measure of violent crimes per region and homicides per region.

‘Drug use was measured by asking individuals if they ‘had used drugs in the month prior to their
arrest’ followed by a list of potential drugs. For the purposes of this paper, only heroin, crack,
other amphetamines, PCP, ecstasy and marijuana/hash existed in great enough numbers in the
target population to be worthy of inclusion in the final models. This variable was also coded as
binary; a response of ‘1’ means an individual has used the drug in question with a result of ‘0’
meaning the individual has not used that drug (but may have used others) at the time of arrest. In
analyses completed but not presented, the impact of all drugs on the level of force used in
suspect-officer encounters was tested for and significant variables were noted. As not all drugs
had a significant effect on the level of force used by police, only significant predictors were
retained in order to simplify the presentation of full models.
Control Variables

As this paper deals with a prison population there are certain demographic characteristics that will be fairly limited by virtue of the respondents being inmates. As state and federal penitentiaries require an individual to be the age of majority in the state within which the prison is located (18 or 19, varying by region), the sample does not contain any individual under the age of 18 (though some erroneously report as such). Further a disproportionate number of offenders in the united states are male, resulting in a sample heavily skewed away from the female population (O’Brien, 2009). With this in mind the control variables utilized in this paper are ethnicity, sex, years of education, age at first arrest and whether the individual is being held in a state or federal penitentiary. Ethnicity is set as a binary variable, with the categories of ‘white’, ‘black’, ‘hispanic’ or ‘other race’. A response of ‘1’ to any category results in the individual being coded as the corresponding racial group; conversely, a response of ‘0’ to any three categories results in the individual being coded as the remaining racial group by default. Sex is measured as a binary category with women being the reference group relative to men. Years of education is a continuous, scale variable measured by asking respondents ‘before admission, what was the highest grade of school you attended’. Respondents answers were then converted to years, including college, university and graduate school where applicable. Age at first arrest is a problematic variable to work with as individuals often over or under reported their real age at the time of arrest, however the number of improbable answers was not significant enough to warrant this variable’s exclusion. Respondent’s were asked ‘how old were you the first time you were arrested for a crime’ and could respond with any numerical answer or receive a non-response. The variable measuring the inmate’s admission to either a state or federal penitentiary was setup
to reflect each inmates personal identification number. Respondents in both the state and federal data sets were coded with an ID number reflecting their belonging to either state or federal prisons and this ID was carried over into the analysis. The Federal/State prison variable is used to control for possible unmeasured differences between the two inmate populations. Respondents are either coded as ‘1’ for federal or ‘0’ for state.

3.3 Analytic Technique

Data from both state and federal correctional facilities inmates was merged into one data set for recoding with SPSS computer software. While all recoding, variable creation and descriptive statistics were done using SPSS the data was then transferred to HLM6 in order to undertake a multi-level linear regression. The linear multi-level model was chosen for this project as the outcome variables all vary between 0 and 6. More specifically, this paper utilizes hierarchical linear modeling (HLM) to take into account the clustering of individuals within states. Further the multi-level model is also useful to measure the impact of state characteristics on the dependent variable. The central purpose of this paper is to determine whether or not there is variation in the use of force by police throughout the United States and as such it is important to assess not only variation at the individual level but also variation at increasing levels of aggregation. Where officer-offender encounters may exhibit variation on a case to case basis HLM allows the analysis of whether or not these cases cluster into categories that can provide a clearer picture of how variation in police use of force is actually distributed. The $R^2$ for level 1 (variance between individuals) and level 2 (variance between states) will be used to assess goodness of fit of models. For an in depth discussion on the use HLM modeling in criminology see Dressler (2002); for a brief discussion on the emerging use of HLM in environmental
criminology see Herbert (1994). Owing to the use of two related but wholly different techniques, there are two equation models that are being used in this study:

**Simple Linear Model**

**Police Force** = \( b_0 + b_1 \text{ (suspect force)} + e \text{ (random error)} \)

The first equation predicts the level of force utilized by police in a given encounter as a direct result of the level of force utilized by the suspect. The greater is the use of force used by a suspect the greater the corresponding force that will, ultimately, be used in any given encounter. The second equation also predicts the level of force used by police in any given encounter, however it does so while taking into account whether the individual is a state or federal inmate\(^1\), the amount of education an individual has had, whether the individual is any race other than white; the amount of force the individual is using against the officer, whether the individual is male, the individual’s age, whether the individual is being arrested in any region other than the North; whether the individual is used heroin, other amphetamines, crack, pcp, ecstasy, marijuana or hash at the time of arrest, whether the individual has ever used mental health services and whether or not the offense the individual is being arrested for is considered a violent offense. As most of these variables are coded as dichotomous 1/0 variables, it is important to note that this second model considers all of the listed characteristics relative to certain reference groups, namely police force is predicted with reference to whether an individual is white, in a Northern region, female and committing a non-violent crime.

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\(^1\) This only makes logical sense when looking retroactively; looking at the time of the offense, this variable is better interpreted as reflecting the scope, severity and nature of the offenders crime. In other words, it controls for potential differences between state and federal inmates.
As the central focus of this paper is determining regional variation in use of force situations, an additional method that may prove worthwhile in subsequent studies and/or future research is spatial regression, specifically spatial lag models. Tobler’s (1970) first rule of geography states that “[e]verything is related to everything else, but near things are more related than distant things.”, suggesting that dependencies may exist between levels of the dependent variables within small subregions of the North, South, West and Midwest; essentially patterns within a region may be the results of observations effecting nearby observations, rather than the result of known predictor variables. Spatial lag models correct for this potential error by assuming that dependencies exist between levels of the dependent variable, for example suggesting police use more force in one case because they are influenced by how police dealt with other cases that occurred nearby; thus it is the effect of police using force in a certain way that effects how subsequent force is used nearby rather than the influence of predictor variables. Spatial lag models introduce a ‘lag’ term into the regression equation that accounts for the levels of the dependent variable at proximate locations of any given observation. For a discussion on the further use of this model and the use of the Moran I correlation coefficient (testing the independence of residuals as a means of establishing spatial correlation) see Ward and Gleditsch (2008); for a discussion on the use spatial regression for use in mapping crime see Levine (2006) and Levin (2008).
Chapter 4: Results

4.1 Descriptive Statistics

Table 1 highlights the descriptive statistics for all variables (n=17,690) used in this paper, broken down by category. Looking at the dependent variable *Police Force*, we can see that 77.9% (n=13,757) of officers used no force, 1.8% (n=317) of police used or threatened to use physical force against a suspect, 6.5% (n=1,154) pushed, grabbed, kicked or hit the suspect, .1% (n=19) utilized a police dog, and .6% (n=112) used a chemical or pepper spray against an offender. Looking at weapons, 12.5% (n=2,219) of officers drew and pointed a gun at an offender without discharging it, while .6% (n=112) officers actually fired their weapons.

Looking at the independent variables, specifically with regards to suspect force in direct opposition of police force, Table 1 shows the most common suspect reaction is to comply with no resistance accounting for 84.9% (n=15,026) of cases. Resisting search, arrest or attempt to escape, comprises 7.7% (n=1,359) of encounters, verbal encounters (argue, insult, disobey) account for 5.6% (n=990) of encounters, fighting with police 1.0% (n=176), verbally threatening police 0.5% (n=80), using a weapon 0.2% (n=37) and threatening an officer with a weapon 0.1% (n=22) round out the category. Accounting for offender characteristics, we see that the population is composed of predominantly male respondents at 78.6% (n=13,898) of the total, with females making up the remaining 21.4% (n=3,792). Racially, the sample is primarily composed of those reporting white, 49.3% (n=8,720) as their ethnicity, followed by black, 42.6% (n=7,535) and hispanic, 18.3% (n=3,244). Other races, 8.8% (n=1,554) make up the remaining portion of the population. There is some over reporting for this variable owing to cases where individuals may not feel they belong to only one category or report more than one
racial group thus the cumulative percentage of racial/ethnic groups does not add up to 100% because Hispanic ethnicity can overlap with black and white (i.e claiming an Hispanic ethnicity in addition to black or white ethnicity). Looking at drug use at time of arrest, Table 1 shows that Marijuana, 74.6% (n=13,188) was used by a majority of the population, followed by Crack, 24.9% (4,410), LSD, 22.0% (n=3,897), Heroin, 18.1% (n=3,198), other amphetamines (specifically non-methamphetamine) 16.8% (n=2,968); PCP was used by 13.2% (n=2,328) and ecstasy was used by 11.4% (n=2,018) percent of the population at the time of arrest. It is worth noting that though a large proportion of the population used a range of drugs, only those drugs included in the final models are presented here. Looking at the rates of individuals who have ever received mental health services (that is before, after or during incarceration) we can see the majority, 96.3% (n=17,031), state they have never received mental health services. 3.7% (n=659) of the inmates in the sample stated that they had at some point received mental health services in their lifetime.

With a focus on the region of arrest, Table 1 clearly shows a higher proportion of arrests in the Southern region, 46.3% (n=8,184) compared to the Northeast at 13.3% (n=2,348); 19.4% (n=3,430) of inmates stated that they were arrested in the Midwest while the remaining 21.1% (n=3,728) were arrested in the Western region of the United States. After arrest, we can see that 19.6% (n=3,471) of suspects went to Federal correctional institutes while the vast majority, 80.4% (n=14,219) ended up in State correctional institutes. Of those being arrested, the median age at which they were first arrested was 18.0, with the average age of those currently in custody at 35.77 years. In this instance, median age is used to counter out extreme response scores of those not providing honest answers, unable to remember the correct age or simply not answering
the question properly. Prior to admission, inmates in both federal and state penitentiaries report an average of 11.62 years of education, though they may have obtained some education while imprisoned.
Table 1. Descriptive Statistics (N= 17,690)

<table>
<thead>
<tr>
<th>Dependent Variable</th>
<th>%</th>
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<tbody>
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<td><strong>Police Force</strong></td>
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<tr>
<td>0-No Force Used</td>
<td>77.9</td>
</tr>
<tr>
<td>1-Use Or Threaten Physical Force</td>
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<tr>
<td>2-Push, Grab, Kick or Hit</td>
<td>6.5</td>
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<tr>
<td>3-Release Attack Dog</td>
<td>0.1</td>
</tr>
<tr>
<td>4-Use Chemical/Pepper Spray</td>
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</tr>
<tr>
<td>5-Pointing Gun (No Discharge)</td>
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<td>6-Firing Gun (Discharge)</td>
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<td><strong>Suspect Force</strong></td>
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<td>0-No Force Used</td>
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<td>1-Verbal: Argue, Insult, Disobey</td>
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<td>2-Verbal: Threaten</td>
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<td>3-Resist Search, Arrest or Attempt Escape</td>
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<td>4-Fight With Police</td>
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<td>Drug Use At Arrest</td>
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<tr>
<td>Marijuana/Hash</td>
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<td>State</td>
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<table>
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<th>Average Education (years)</th>
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<table>
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<th>Median Age At First Arrest</th>
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<table>
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<tr>
<th>Average Age (years)</th>
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<tbody>
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<td>35.77</td>
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</table>
4.2 Multivariate Analysis

As this paper utilizes both simple linear and hierarchical linear modeling, there are multiple models that need to be presented. Table 2 presents two models; model 1 is the simple linear regression using suspect force as the lone predictor of police force and model 2 utilizes drug use at time of arrest, mental health, suspect force and whether the offense was considered violent as primary variables, as well as years of education, admission to a federal or state penitentiary, ethnicity, sex and age at arrest as control variables. Table 3 is the first model to present the regional variables (Midwest, West and South, with reference to North) in a multi-level format in addition to drug use, mental health, suspect force and whether the offense was considered violent as well as the previously mentioned control variables being present in level 1. Table 4 presents the fourth possible model towards understanding police use of force, and it replaces the regional variables with aggregate crime rates at level 2, maintaining drug use at time of arrest, mental health, suspect force and whether the offense was considered violent as well as associated control variables in level 1. While each of these models provides a unique take understanding police use of force it is important to note that each of the four models contains slightly different variables and regional variation is only tracked in model 3 (table 3).

With regards to key indicators of police use of force suspect force emerges as the strongest predictor of how police will respond in any given encounter, controlling for all sociodemographic and contextual factors. While this does not rule out the role of regional variation it does suggest that the more likely candidate for behavioral variation is the suspect rather than the officer.
Table 2. Suspect Force (Model 1) and Demographic Characteristics (Model 2) As Predictors of Police Force (n=17,690 suspects)

<table>
<thead>
<tr>
<th></th>
<th>Model 1</th>
<th></th>
<th></th>
<th>Model 2</th>
<th>S.E</th>
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<td>.013</td>
<td></td>
<td>.541***</td>
<td>.013</td>
<td></td>
</tr>
<tr>
<td>Federal Flag</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td></td>
<td>-.014</td>
<td>.033</td>
<td></td>
</tr>
<tr>
<td>Education</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td></td>
<td>.009</td>
<td>.005</td>
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</tr>
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<td>-</td>
<td>-</td>
<td>-</td>
<td></td>
<td>.084**</td>
<td>.038</td>
<td></td>
</tr>
<tr>
<td>Black</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td></td>
<td>.212***</td>
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<tr>
<td>Other Race</td>
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<td>-</td>
<td>-</td>
<td></td>
<td>.046</td>
<td>.047</td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td></td>
<td>.379***</td>
<td>.032</td>
<td></td>
</tr>
<tr>
<td>Age At Arrest</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td></td>
<td>-.001**</td>
<td>.000</td>
<td></td>
</tr>
<tr>
<td>Heroin</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td></td>
<td>.129***</td>
<td>.036</td>
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</tr>
<tr>
<td>Other Amphetamines</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td></td>
<td>.034</td>
<td>.039</td>
<td></td>
</tr>
<tr>
<td>Crack Cocaine</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td></td>
<td>-.193***</td>
<td>.032</td>
<td></td>
</tr>
<tr>
<td>PCP</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td></td>
<td>.096**</td>
<td>.041</td>
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</tr>
<tr>
<td>Ecstasy</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td></td>
<td>.177***</td>
<td>.041</td>
<td></td>
</tr>
<tr>
<td>Marijuana/Hash</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td></td>
<td>.101***</td>
<td>.031</td>
<td></td>
</tr>
<tr>
<td>Ever Received Mental Health Treatment</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td></td>
<td>.150**</td>
<td>.066</td>
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</tr>
<tr>
<td>Offense Considered Violent</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td></td>
<td>-.014</td>
<td>.028</td>
<td></td>
</tr>
</tbody>
</table>

Model 1: $R^2 = .097$
Model 2: $R^2 = .114$

*p < .001 ***
*p < .05 **
*p < .10 *
Table 3. Demographic and Geographical Predictors Of Police Force, Multi-Level (n=17,690 suspects clustered in 51 states)

<table>
<thead>
<tr>
<th></th>
<th>β</th>
<th>S.E</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Model 3</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Level 1 (suspect characteristics)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Federal Flag</td>
<td>-.010</td>
<td>.032</td>
</tr>
<tr>
<td>Education</td>
<td>.009*</td>
<td>.005</td>
</tr>
<tr>
<td>Hispanic</td>
<td>.081**</td>
<td>.038</td>
</tr>
<tr>
<td>Black</td>
<td>.214***</td>
<td>.029</td>
</tr>
<tr>
<td>Other Race</td>
<td>.041</td>
<td>.047</td>
</tr>
<tr>
<td>Suspect Force</td>
<td>.542***</td>
<td>.013</td>
</tr>
<tr>
<td>Male</td>
<td>.377***</td>
<td>.032</td>
</tr>
<tr>
<td>Age At Arrest</td>
<td>-.001**</td>
<td>.000</td>
</tr>
<tr>
<td>Heroin</td>
<td>.127***</td>
<td>.036</td>
</tr>
<tr>
<td>Other Amphetamines</td>
<td>.036</td>
<td>.039</td>
</tr>
<tr>
<td>Crack Cocaine</td>
<td>-.193***</td>
<td>.032</td>
</tr>
<tr>
<td>PCP</td>
<td>.096**</td>
<td>.041</td>
</tr>
<tr>
<td>Ecstasy</td>
<td>.174***</td>
<td>.041</td>
</tr>
<tr>
<td>Marijuana/Hash</td>
<td>.102***</td>
<td>.031</td>
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<tr>
<td>Ever Received Mental Health Treatment</td>
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<td>.066</td>
</tr>
<tr>
<td>Offense Considered Violent</td>
<td>-.015</td>
<td>.028</td>
</tr>
<tr>
<td><strong>Level 2 (states)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>South</td>
<td>-.235***</td>
<td>.064</td>
</tr>
<tr>
<td>West</td>
<td>-.165**</td>
<td>.072</td>
</tr>
<tr>
<td>Midwest</td>
<td>-.125*</td>
<td>.070</td>
</tr>
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</table>

Model 3: $R^2$ (level 1) = .114; $R^2$ (Level 2) = .665

$p < .001$ ***

$p < .05$ **

$p < .10$ *
Table 4. Demographic and Crime-Type Predictors of Police Force, Multi-Level (n=17,690 suspects, clustered in 51 states)

<table>
<thead>
<tr>
<th></th>
<th>β</th>
<th>S.E</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Model 4</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Level 1</strong> (suspect characteristics)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Federal Flag</td>
<td>-.014</td>
<td>.032</td>
</tr>
<tr>
<td>Education</td>
<td>.009</td>
<td>.005</td>
</tr>
<tr>
<td>Hispanic</td>
<td>.081*</td>
<td>.038</td>
</tr>
<tr>
<td>Black</td>
<td>.208***</td>
<td>.029</td>
</tr>
<tr>
<td>Other Race</td>
<td>.047</td>
<td>.047</td>
</tr>
<tr>
<td>Suspect Force</td>
<td>.542***</td>
<td>.013</td>
</tr>
<tr>
<td>Male</td>
<td>.378***</td>
<td>.032</td>
</tr>
<tr>
<td>Age At Arrest</td>
<td>-.001**</td>
<td>.000</td>
</tr>
<tr>
<td>Heroin</td>
<td>.127***</td>
<td>.036</td>
</tr>
<tr>
<td>Other Amphetamines</td>
<td>.036</td>
<td>.039</td>
</tr>
<tr>
<td>Crack Cocaine</td>
<td>-.192***</td>
<td>.032</td>
</tr>
<tr>
<td>PCP</td>
<td>.094**</td>
<td>.041</td>
</tr>
<tr>
<td>Ecstasy</td>
<td>.176***</td>
<td>.041</td>
</tr>
<tr>
<td>Marijuana/Hash</td>
<td>.101***</td>
<td>.031</td>
</tr>
<tr>
<td>Ever Received Mental Health Treatment</td>
<td>.149**</td>
<td>.066</td>
</tr>
<tr>
<td>Offense Considered Violent</td>
<td>-.015</td>
<td>.028</td>
</tr>
<tr>
<td><strong>Level 2</strong> (states)</td>
<td></td>
<td></td>
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<tr>
<td>Aggr. Homicide Rate</td>
<td>-.771</td>
<td>.741</td>
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<tr>
<td>Aggr. Violent Crime Rate</td>
<td>.032*</td>
<td>.018</td>
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</table>

p < .001 ***  Model 4: R^2 (level 1) = .114; R^2 (Level 2) = .404
p < .05 **   
p < .10 *
In model one, we see that suspect force as a lone predictor results in a positive, highly significant (.571, p<.001) relationship. Removing all other factors the presence of resistance on behalf of the suspect results in force utilized by the police. Bringing in independent and control variables, Model 2 highlights the continued strong positive presence of suspect force in predicting police force (.541, p<.001), but also demonstrates that being male (.379, p<.001), and hispanic (.084, p<.05) or black (.212, p<.05) is associated with more police force. In addition, using heroin (.129, p<.001), PCP (.096, p<.05), ecstasy (.177, p<.001) or marijuana/hash (.101, p<.001) are all significant positive predictors of increased police use of force. Being older at the time of arrest (-.001, p<.05) versus being younger and having ever used crack cocaine (-.193, p<.001) both maintain negative significant relationships with police use of force suggesting that younger, non-crack using individuals are at greater risk of encountering police force. It is rather unexpected that the use of crack cocaine at the time of arrest would be negatively associated with the use of force by police as this suggests individuals are either having fewer encounters or less violence per encounter then crack users. Vaughn et al. (2010) provide some evidence to suggest that it is the sociodemographic characteristics associated with long-term crack use (socioeconomic situation, education, neighborhood) that is responsible for the link between violence and crack; thus, a lack of violence might suggest that the crack-cocaine user in this sample is of a contextually different nature than other members of the population, perhaps best seen as functional or casual users who do not fall into the typical demographic of crack-cocaine users. Those who have received mental health treatment in their lifetime (.150, p<.05) are also significantly more likely to encounter force in any given encounter with police
Model 3 shows many of the same patterns as model 2, as being hispanic (.081, p<.10) or black (.214, p<.001), and younger at the time of arrest (-.001, p<.05) all contribute to being significantly more likely to experience police use of force. With regard to the location of the arrest, regional variables at level two show significant results across the board. Relative to the Northeast suspect -officer encounters in the South (-.235, p<.001) generate less force used by the police; this trend continues in the West (-.165, p<.05) and Midwest (-.125, p<.10), though the significance levels drop steadily outside of the South. In model 4 we see much the same as in the previous 3 models, with drugs, race, sex and a history of mental health treatment all playing a significant role in the amount of force individuals are likely to encounter. Removing regional variables at level 2 in favor of aggregated homicide and violent crime rates we see no major change in predictive ability. Suspect force (.542, p<.001) is still the strongest and most significant indicator of police force used in a given encounter, while using the aggregate violent crime rate for all regions (.032, p<.10). This last finding is a little tougher to understand, but essentially can be understood as whether or not police are responding to higher rates of violent crime in America with higher rates of force. The results indicate that a high-violence context matters above and beyond the individual characteristics of the suspect and the incident.

On the basis of the 4 models presented in this section, there is considerable support for the notion that police are using greater force in the Northeast regions relative to the South when encountering suspects. This relationship is also marked in the West and Midwest, though to a lower degree. Control variables suggest that there are racialized indicators of force, though over and above these measures suspect force remains the most significant indicator of how police act in any given circumstance. Finding support for a culture of violence hypothesis which suggests
crime as part of everyday life, the lower level of force being used by police in the South suggest a lower level of suspect resistance, which would lend credence to the idea that crime and its inherent risks are part of everyday life in Southern US regions.
Chapter 5: Discussion

Contextually, the purpose of this paper was to gain a better understanding of whether or not there is any weight to the argument that police apply force during encounters erratically and in an inconsistent fashion. This argument can be assessed by determining whether a perceived lack of consistency can be attributed to regional variation in how suspect-officer encounters proceed and, when controlling for the region of arrest, whether suspect-officer encounters can be seen as predictable and consistent. To test the validity of this argument empirically two hypotheses were proposed at the outset of this paper: 1) lower levels of force will be found in Southern U.S regions, relative to levels in the North; 2) Regional Characteristics can be used in an effort to predict the level of force used in a police-suspect encounter. The first hypothesis suggests that when all suspect-officer incidents are separated by the region in which they occurred Northern incidents will average higher levels of force than Incidents in the South, Midwest and West, with the most marked difference between the North and South. This first perspective suggests the dominance of a culture of violence in the South and crimes of opportunity in the North as explained by routine activity theory. There is considerable support for strong regional variation in the North and South as predicted; the South maintains lower levels of force used by officers relative to the North. The second perspective presented suggests that there are distinct characteristics of the North and South that should enable us to predict the level of police force in any given police-suspect encounter. In the South we should expect to see a dominance of crimes considered violent versus predominantly property based crimes in the North; as well, we should expect that there are racial, sociodemographic and cultural variables associated with each theoretical perspective that help to predict the use of force by police. While
there was considerably less support for the second hypothesis, some evidence was found to suggest that racial and sociodemographic variables characteristic of each region were significant predictors.

Before proceeding with this discussion it is important to clarify once again the mandate of this paper as assessing whether or not there is regional variation in the use of force when force is used; this paper does not seek to understand the moral issues regarding the use of force nor the legitimacy of the police to use force. Further this section will not discuss in any great length the nature of force as excessive or just or make any claims with regard to the use of one method over another. The following discussion expands on the brief summary presented above as well as considering contextual and other important findings.

5.1 Regional Variation In Police Use of Force

The models presented in this paper provide strong support for the presence of variation in how police apply force in different regions of the United States. The strongest support suggests that the biggest difference is found between the North and the South, with the Midwest and West also showing variation, but to a lesser degree. The results indicate a negative relationship between Police use of Force and the South, relative to the North, suggesting that Police in the South use lower levels of force in any given suspect-officer encounter than do police in the North. This result may seem counter intuitive, owing to often higher rates of crime in Southern regions of the United States however it is this very crime rate and the culture that it generates that is the mitigating factor in why crime is lower in the South.
A Southern Culture of Violence

Theories of a culture of violence portray a culture in which crime, violence and victimization are all a part of everyday life. Fights, assaults and high risk behaviors all become part of how the culture functions and, to this end, encountering the police and potentially facing jail time are seen as part of playing the ‘game’. Within this culture, there are several potential explanation as to why police use less force and, accordingly, why suspects display more compliance (lower resistance). Initially one may believe that higher crime rates mean more arrests and suspect-officer encounters, however the situation seems to be more complicated. Both police and suspects maintain a mutual fear of each other as the expectation is that suspects have nothing to lose and officers do not take situations lightly. Both parties are on a proverbial ‘hair-trigger’ and any reaction can be expected to be an overreaction, thus encounters are only worthwhile if the action is deemed serious enough to justify potential injury or death on either side. Further there is an understanding between officers and offenders that what constitutes a criminal act may be contextually negotiable as to avoid a small conflict (such as loitering) turning into a much larger conflict where either the police or the offenders end up getting injured or killed. Another perspective is that of the transitory nature between victims and offenders in high crime areas. This explanation states that a victim one day is likely to be an offender the next and that a majority of potential or current victims have previously been (or will eventually become) offenders in some capacity or another. When approaching any given situation and assessing the degree of victimization that has occurred officers consider that the individual currently being victimized will later be an offender and that the current offender may later be victimized, resulting in a form of ‘street justice’ that sees an equal distribution of offending and
victimization. This perspective would suggest that only when an officer is certain of a victim’s innocence would they intervene, ensuring that the neighborhood is allowed to police itself in instances where the relationship between victims and offenders is clearly a reciprocal one.

Tangent to this idea is that of officer burnout, which suggests that high crime rates and constant criminal activity tied to an overworked and understaffed police force result in a situation where only the most serious crimes are dealt with. Overload hypotheses predict that when an officer or entire department’s caseload gets to be too big, context can be used to establish whether any given crime meets the threshold for what is considered ‘bad’ with reference to the resources available to properly deal with the crime (such as officers, jail space, lawyers). In this view officers policing in a culture of violence actually arrest fewer offenders and intervene on fewer crimes. Only the most hardened criminals participating in the most extreme levels of criminal activity are likely to be caught, and owing to their criminal history are likely to have encountered the police/arrest before and be more likely to see their arrest as part the lifestyle they have chosen, thus typically being more compliant during the arrest.

A final explanation within a culture of violence for the lower overall level of force used by police is the nature of a high-violence culture itself. Within a culture of violence members are not immune to the presence of violence in their everyday lives and there is the possibility that members socially construct who and what is ‘bad’ relative to who is beneficial to the community, regardless of what crimes they may commit. In such a situation the police are less likely to be called when an individual’s actions are seen as beneficial to the community (such as self defense, robbing or stealing, or killing a potential ‘threat’ to the community). Even in high crime circumstances not all crimes are going to be viewed as criminal by the community and with the
interests of a members’ well being taken into consideration police may never become involved. When police are not involved, there is no potential for action or the use of force even though a crime may have been committed. In such circumstances the differences found between the level of force used by police against suspects may be potentially explained in terms of how much violence is actually reported; individuals become rather desensitized to violence and thus the level of force reported may be downplayed to such a degree that it appears as though less force is being used overall when in fact less force is being reported.

**Routine Activity: Opportunistic Offenders**

Routine activity theory suggests that crimes occur owing to the presence of a suitable target, lack of capable guardian and an offender motivated to commit an offense. The crimes committed in this manner are typically crimes of opportunity as the confluence of all three characteristics is largely a matter of chance and the choice to seize an opportunity to offend is that of the individual committing the offense. The crimes occurring in Northern regions of the United States are characteristic of Routine Activity and the offenders do not necessarily have to be hardened criminals. Viewed from this perspective, there are several potential explanations of why police use higher level of force dealing with criminals in the North. Contrary to what is found in a Southern culture of violence, criminals in the North are less likely to experience violence on a daily basis and as such are less likely to be involved in random acts of violence (especially physical) that provide zero net benefit to them. As their crimes are opportunistic, they are more likely to wait for the ‘right’ target. This careful selection of a target makes potential offenders much less likely to commit criminal acts frequently, thus creating a situation where crimes are easily managed by police. This situation is essentially the opposite of what overload
and officer strain theories would predict, meaning that officers are more diligent in the pursuit of offenders and are free to pursue all crimes rather than only focusing on the largest. With more resources available officers in the North engage in a greater number of suspect-officer encounters as they do not need to wait for only the most serious offenses. With regard to officer-offender relations, the police typically do not see those committing smaller property based opportunistic crimes as hardened offenders. As well, criminals in the North are much less likely to carry a weapon for everyday use as the levels of violence present do not warrant a belief that the suspect may have to defend themselves against other criminals on a daily basis. Contrary to the South, then, there is no mutual fear between officers and offenders as the officers are likely to see suspects as opportunistic predators who have clearly violated the law and must be dealt with. In a similar light, officers may also observe a clear relationship between victims and offenders as those being victimized are often caught in the wrong place at the wrong time and are not likely to be offenders themselves. The nature of opportunistic crimes suggests that offenders choose to act on the basis that they can succeed, hinting that offenders target those that they believe can be easily victimized. Such victims are likely to have certain characteristics such as being either very young or very old, physically smaller or otherwise disadvantaged, that make them attractive targets and unlikely to be in a position to victimize someone themselves.

Taking a neighborhood perspective and considering often clear divide between offenders and victims, a Northern neighborhood is less likely to want to protect the interests of a criminal or see his or her crimes as beneficial in some way and as such there is a greater likelihood that police will be called and involved in a higher number of situations leading to a greater number of encounters. Owing to offender inexperience and the nature of Northern criminal as being
opportunity-based, encounters with the police are not seen as routine and part of everyday life; in an assessment of the benefits of committing a crime, routine activity theory predicts the lack of a capable guardian as one of the most important tenets, thus the sudden presence of a guardian results in the act being seen as undesirable and unwanted. Offenders are thus more likely to fight back and resist arrest, as there is zero net-benefit to being caught. Whereas offenders in the South see potential arrest as a necessary evil of their chosen lifestyle, Northern offenders are more likely to see arrest, or even the potential of arrest, as the end of their criminal lifestyle. This mindset among Northern criminals can result in higher levels of suspect resistance and, consequently, higher levels of force used by the police.

5.2 Suspect Force

The most substantial predictor of the level of force used by police in any given encounter is the level of resistance displayed by the suspect. Though this may seem obvious, within the context of regional variation there are some subtleties that are worth noting. Understanding how suspects and police interact can be rather tricky as police force may be looked at as a response to a direct action by the suspects, such that when the suspect engage in resistance the arresting officer(s) respond in kind, or rather as a provocation encouraging suspect resistance.

From the perspective of police as aggressors, the nature of the relationship is one in which the officer(s) act first. The use of force by an officer is meant to control or restrain an individual and as such it must always be one level higher than that of the offenders level of resistance. Accordingly, an officer arriving on scene with an offender must issue a verbal command, whether it is recognizing the suspect with no restraint or communicating that the suspect must cease what they are doing, thus initiating the first level of force (verbal commands)
without provocation by the suspect. In this view the officer has acted first without provocation, however it may be argued that the very nature of the officer being called to the situation is provocation enough. This view is important as it helps to clarify that police can act first, though cause no physical or emotional toll; the use of force requires police to control a situation, removing any possibility that an officer can arrive on scene and simply wait for the suspect to react. From the perspective of suspects as aggressors, non-compliance on the part of a suspect will *always* result in police using some degree of force. Taking into account police issuing a verbal warning, it is up to the suspect to then comply or move forward with resistance; in an instance where the suspect uses resistance, officers will apply force. It is seldom the case that compliant offenders have a level of force used against them *greater* than is needed to restrain them. It is important to remember, again, that the police will always utilize one level of force greater than the suspect is using and as such a compliant suspect can expect one level of force above this, which is typically handcuffing, search or placement in a police cruiser. In this view, the suspect will only have a degree of force utilized against them that is necessary to counter their level of resistance and restrain them, thus officers and suspects move through the continuum on relatively equal footing.

It is important to understand both perspectives on how a suspect-officer encounters play out. While both an officer and a suspect can be portrayed as aggressor, both instances require the suspect to sustain aggression to warrant levels of police force above verbal warnings. Compliance typically results in either arrest or non arrest (a level of force equal to 0 or 2). The conclusion to be drawn here is that regardless of whether an analysis has the suspect or officer acting first, police force is mitigated by suspect force and does not exceed more than one level
above what the suspect is utilizing. In cases where officers do act first, force typically does not exceed the first level and may erroneously be termed ‘aggressive’.

5.3 Sociodemographic Explanations and Influences

As this topic is covered thoroughly in the literature it should be no surprise that ethnicity, education and economic factors are all significant in predicting the degree to which police use force against suspects in a given encounter. Drawing on Black’s theory of law (Black, 1976), we may seek to explain the presence of racial characteristics as significant through an understanding that ethnic minorities have unequal access to the law as well as having the law used disproportionately against them. The degree to which an individual is capable of having the law work to their benefit, such as equitable treatment by the police, access to lawyers and legal services and the hope of due-process are all thought to decrease among minorities relative to whites, creating a situation where ethnic minorities are hypothesized to maintain a negative view of the legal system as biased or corrupt and, accordingly, be resistant to cooperating with it. Further, Black’s theory extends to cover an individual on the offending side of the law, suggesting that the powers of the legal system (policing, courts, juries) are used disproportionately against non-whites in an effort to control them resulting in individuals viewing police as discriminatory rather than authority figures. When police are not seen as legitimated authority figures, there is an increased likelihood that an individual will see resisting arrest and/or fighting back as a just cause rather than as an illegal act. Economic theories paint a similar picture, placing the police as agents of control who are out to maintain the status quo and protect the interests of the rich. Thus, economically disadvantaged individuals are kept in their current state through the physical control of the police and suspect-officer encounters are the
embodiment of economic disparity, where those outside of mainstream economic activities (illegal activities) are controlled so as to ensure the proper functioning of society. In this view those living in poverty may fight back as an act of rebellion or revolution or, as mentioned earlier, out of a refusal to legitimate the actions of the police. The exact nature of how educational attainment factors into the level of force a suspect will encounter and, accordingly, the level of resistance they will display is quite hard to explain conclusively. Those who are involved in education are likely to be involving themselves in their educational institution and occupying themselves with class, coursework and other responsibilities and simply are not in the right situation to be getting involved with police. Arguably educational institutions are not immune to arrests but the student life requires a substantial time commitment that is incongruent with a lifestyle of crime. Additionally those attending school are likely to spend the bulk of their time with like-minded individuals (i.e non-criminal) and thus are unlikely to encounter the appropriate situation in which an encounter with the police is a likely circumstance. This perspective basically states that criminals are not participating in educational activities and educational activities are not conducive to a life of crime. As Terrill & Paoline (2007) and Garner, Maxwell & Heraux (2002) point out, gathering educational information on suspects is particularly challenging and, most importantly, officers typically have no access to this information when they first contact a suspect, thus the role of education in arrest is an understudied field. Lifestyle theories of crime and delinquency may help to fill this void, however, suggesting that a lifestyle congruent with certain decisions (such as the choice to get an education or live in a certain neighborhood) can result in a reduced likelihood of offending and victimization. Forde and Kennedy (1997) further this theory by connecting Gottfredson and
Hirschi’s (1990) General Theory of Crime, suggesting that the characteristics of criminals are incongruent with non-criminal lifestyles, such as the type of lifestyle that might afford an education beyond high school. Further, membership in one lifestyle often denotes membership in that lifestyle in other facets of one’s life and it may be the case that greater educational achievement is parlayed into a stable career after school. Such a career would further remove an individual from the lifestyle associated with criminal acts and police encounters.

The role of drugs in this study is quite interesting and there are many potential explanations for the role of drugs and police force. The dominant explanation and one for which this paper provides support, is the role of suspect demeanor. It can be the case that police alter the level of force they are going to use when they believe a suspect to be dangerous based on an assessment of this behavior. Drugs may alter suspect behavior making them more irritable, anxious or violent and thus changing officer perceptions of suspect demeanor and leading to a greater level of force being utilized. Similarly if officers encounter a suspect that they know to be intoxicated they may approach with more caution or presume that the suspect is more likely to be violent (whether this is true or not) and thus preemptively determine that more force will be necessary. Factoring in Routine Activity and the role of crimes as opportunistic and self-serving, drug use might be viewed as part– or potentially the underlying cause of– a criminal lifestyle, and thus crimes of opportunity are used in cases of severe drug dependence or addiction. This position would be reversed in the South, as we may expect that in a culture of violence crimes are not committed to maintain a drug habit, but rather they are a part of everyday life. Significant among the findings and in a result that is counter to what might be expected, crack cocaine produces a negative relationship with police force and is the only drug considered that does not
increase the level of force used against a suspect. The reasoning for this result is by no means conclusive, though it might be the case that the nature of individuals using crack-cocaine versus pure cocaine or other drugs is not as aggressive or prone to conflict. Indeed as previously mentioned in this paper Vaughn et al. (2010) provide substantial evidence to suggest that the lifestyle of the long-term crack-user is one of solitude. Users are typically more focused on finding their next supply of the drug and don’t often resort to violence to obtain drugs or money. As well, the authors note that the effect of the drug itself is one of calm and euphoria and does not encourage violence or any overtly physical activity (such as fleeing or fighting an officer). Further there might be a situation where crack users are not involved in the types of crimes that are likely to result in a police encounter, such as low-level theft. Contrary to this position, however, Inciardi (1990) found links between crack use and violence with specific relation to age; the author highlights the strong correlation between violence and crack use among ‘hard-core’ adolescent offenders, though this position cannot be extrapolated to offenders of all ages. Blumstein (1995) finds evidence to substantiate the link between crack use and violence, again with reference to adolescence. The authors contend that owing to crack’s appeal to lower socioeconomic status users, both dealers and users engage in a higher overall number of transactions or ‘deals’, as users are likely to only be able to afford small amounts at any given time. To deal with a greater volume of sales, high level dealers recruit more street-level dealers, primarily comprised of youth and adolescents drawn by the lure of quick money and status. The study suggests that youth, rather than more mature adults, are more likely to take risks and engage in violent behavior; tied to an increased prevalence of weapons for self-defence, the buying, selling and using of crack becomes tied to constant violence. Both examples provide
potential contrary evidence to explain the role of crack and violence, however it should be noted that these appraisals are limited to explaining the role of crack in mitigating adolescent violent behavior. As the average age in this study is considerably higher (35.7), a replication study using older crack-cocaine users may be worthwhile.

In addition to drugs, demeanor hypothesis can also be used to discuss mental health issues and their significant chance of increasing the level of force used by police. Reisig et al. (2004) point out that individuals with a history of mental health illnesses are likely to behave in such a way that officers view as disrespectful, disobedient or aggressive; though the suspect may not be aware of their demeanor, it has an influence on how the offender is likely to be treated by the police. This effect tends to lose salience, however, when officers are made aware of mental health issues suggesting that it is not so much a characteristic of those suffering from mental health issues so much as it is the way in which police construct the situation. With reference to the salience of sex as a predictor of police use of force, men are often seen as aggressors with combative personalities. As seen in the sample in this study males are also much more likely to come into contact with the police in the first place increasing the number of incidents for which force is used in any capacity. Another potential explanation may be that males are more likely to believe that their actions are in self-defense or that they stand a reasonable chance of escaping police; females may be more likely to believe resisting is less effective than complying with officers.

5.4 Conclusions, Implications and Limitations

Overall, the most significant variable in understanding the degree to which police use force in any given encounter is the resistance of suspects. There is substantial regional variation
in how police officers use force with higher levels found in the North and lower levels found in the South. This finding has two major understandings; first, suspects in the North relative to the South are more likely to resist and it is this resistance that results in higher levels of police force being used. Second, there are two distinct types of criminal cultures operating in the United States that help to mitigate the way police and suspects interact. A culture of violence in the South ensures high crimes rates, officer overload and a mutual fear between offenders and police; the prevalence of crimes of opportunity in the North leads to clear victim-offender relationships, officer diligence and criminals who are more desperate and likely to resist. The use of certain drugs, namely heroin, pcp, ecstasy, amphetamines and marijuana/hash all increase the chances that police will use more force against a suspect, owing largely to the effects of these drugs on suspect demeanor. This study also found that being male, having less education and having a history of having received mental health services all also increase the chances that police will use force against a given suspect.

The purpose of this paper has been to understand whether or not there is regional variation in the way in which police administer force against suspects, with the express purpose of attempting to determine if there is a consistent method to how police use force. When taken as an aggregate across all police jurisdictions, it is easy to assume that the police use force haphazardly and without regard to any mandated system or structure. However when force incidents are grouped into the regions within which the arrest occurred, there are clear trends that police typically use more force in the North and less in the South. The main implication of this finding is that use of force incidents cannot be compared across regions, but rather must be assessed within regions. Owing to historical, contextual and sociodemographic factors, an
encounter between officers and suspects in the South and officers and suspects in the North are not comparable situations; not only do officers respond differentially, suspects also behave differentially in each situation. To best understand how police apply force, it is best to compare cases within a predetermined region rather than comparing any two cases. From a social standpoint, officer actions should not be appraised (as is common) based on actions of officers in other parts of the country, but should made relevant to the district within which the offense occurred. There are unique challenges facing officers in different parts of the country and in order to deal with this officers have had to modify how they handle any given situation. In a context where suspects are more likely to arrest, officers cannot start at the bottom of the force continuum and work their way up, but rather they may have to start at a higher level to deal with higher suspect force. Conversely, officers in areas where suspects are less likely to resist can start at lower levels on the force continuum and may be erroneously viewed as being more lenient. Calls for a nationwide mandate on appropriate use of force may aid the public image of officers who use force, however the research in this paper suggests that such a framework would not likely be effective. Any mandate regulating how officers use force must be contextually relevant, regional designed and have substantial input from the officers who encounter suspects everyday.

The primary limitations of this paper arise from the nature of the sample as being composed entirely of individual’s that have been arrested and an inability to understand suspect and officer motivations for their actions. As is the case with any study designed around a prison sample, the results only generalize to suspects that have been caught and arrested for a given crime. This study does not suggest that all suspect-officer encounters will unfold according to the findings of this paper, nor does it suggest that all encounters in a given region will be similar.
Relying on a sample of state and federal inmates can also be troublesome in that these individuals are often considered to be the most serious, violent and hardened criminals; suspects who were released, remanded to smaller facilities, mental health services or parole cannot be said to have similar encounters with the police as those in this study. The second major limitation of this study, the degree to which officer and suspect intentions can be known, also forms the basis for potential future research. While this paper can suggest variables that help to determine when police will use a greater degree of force, it is impossible to determine what the mindset of the officer is when they encounter a suspect and, conversely, what the suspect is thinking when they encounter an officer. Without knowing the intentions or thought processes of both parties, it is hard to definitively say how a situation escalates to a certain level. Future research could potentially seek to understand how suspects and officers appraise of encounters and how their thought processes influence their choice to act. While demeanor theories of police behavior attempt to account for how officers assess a suspect, they do not address how officers choose whether to act, how and to what degree; as well these theories do not address how suspects assess their encounters with police, their choice to resist or comply or how they determine whether resistance is worthwhile.

5.5 Future Research

As the primary finding of this paper was important role played by suspect resistance as a mitigating factor when looking at how police use force, future research should be geared toward gaining a better understanding of why a suspect chooses to resist. Further, an understanding of why there is regional variation in levels of suspect resistance may also prove to be helpful in understanding suspect-officer encounters. As there is a current lack of research concerning
suspect behavior recorded side-by-side with officer behavior, future research should aim to track both suspect and officer force at the same time and from a similar source (such as officers and suspects each report on their own behavior at the time of arrest). As the majority of data available today concentrates on police report information there exists room to improve the reliability of future data by taking into account both suspect and officer subjective opinions as to how a given encounter proceeded. Such an approach would allow for opinions that do not only reflect that of the officer or the suspect, but rather portray a less biased and deeper understanding of exactly what transpired. Lastly it may be worthwhile to focus on the cultural factors operating in the North and South as distinct sub-regions of the United States as a whole; as the literature review in this study noted there is a distinct historical context operating in the South (‘Southernness’) though exactly how this context operates is understudied and often brushed off as a background variable. Future research should attempt to address the why component of regional variation in suspect resistance in addition to addressing the how component presented in this paper. A multi-faceted approach considering both characteristics of the region and the offender is sure to provide greater insight as to why some suspects choose to fight back and why others do not, beyond the more brief conclusions drawn in this paper.
Appendix A

Questions asked regarding officer force used against suspects:

S5Q20D: When you were arrested, were you handcuffed?

S5Q20E: Did the police officer(s) for any reason use or threaten to use physical force against you, such as grabbing you or threatening to hit you?

S5Q20F_1: At the time of your arrest did the police officer(s) Push or grab you

S5Q20F_2: At the time of your arrest did the police officer(s) Kick you or hit you with their hand or something held in their hand

S5Q20F_3: At the time of your arrest did the police officer(s) Unleash a police dog that bit you

S5Q20F_4: At the time of your arrest did the police officer(s) Spray you with a chemical or pepper spray

S5Q20F_5: At the time of your arrest did the police officer(s) Point a gun at you but not shoot

S5Q20F_6: At the time of your arrest did the police officer(s) Fire a gun at you

Questions asked regarding suspect resistance towards officers:

S5Q20I_1: At any time during the arrest, did you Argue with or disobey the police officer(s)?

S5Q20I_2: At any time during the arrest, did you Curse at, insult, or call the police officer(s) a name?

S5Q20I_3: At any time during the arrest, did you Say something threatening to the police officer(s)?

S5Q20I_4: At any time during the arrest, did you Resist being handcuffed or arrested?

S5Q20I_5: At any time during the arrest, did you Resist being searched or having the vehicle searched?

S5Q20I_6: At any time during the arrest, did you Try to escape by hiding, running away, or engaging in a high-speed chase?

S5Q20I_7: At any time during the arrest, did you Grab, hit, or fight with the police officer(s)?
S5Q20I_8: At any time during the arrest, did you Use a weapon to threaten the police officer(s)?

S5Q20I_9: At any time during the arrest, did you Use a weapon to assault the police officer(s)?

Questions asked regarding the location of the offender at the time of their arrest:

Federal Inmates:
S5Q15A_FIPS: At the time of your arrest [CONTROLLING ARREST DATE], in what city or place did you live? (State)

State Inmates:
S5Q15A_ST: At the time of your arrest [CONTROLLING ARREST DATE], in what city or place did you live? (State)
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